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THE INSECT PEST SURVEY BULLETIN

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR THE MONTH OF JULY, 1925

Grasshoppers, as a whole, are not causing any serious general devastation. Reports of unimportant and very localized outbreaks have been received from the Middle Atlantic, East-Central, Upper Mississippi Valley, Great Plains, and Rocky Mountain States, as well as Mississippi and Texas.

The Mormon cricket is doing considerable damage to alfalfa in Wyoming and is very abundant in the Uinta Basin in Utah.

White grubs are generally less prevalent than last year in the East-Central and West-Central States.

Reports of unusual abundance of cutworms continue to be received from practically the entire country, extending from Maine to Florida and westward to Oregon.

Recent surveys indicate that the Hessian fly is less prevalent than last year in Ohio and Iowa, while on the other hand the poor wheat crop of Kansas is largely attributed to this pest, one county alone estimating the loss at 1,250,000 bushels.

The wheat stem maggot is attracting considerable attention in Iowa, South Dakota, and Nebraska.

The chinch bug is appearing as a pest in northwestern Ohio, the southeastern corner of Michigan, North-central Kansas, western and southwestern Missouri, and scatteringly over Arkansas. It is still attracting much attention in Mississippi and Louisiana, in the latter State the outbreak being more widespread than ever heretofore recorded. A marked increase in chinch bug infestation is anticipated in Illinois.

The corn earworm is reported as unusually abundant in the southeastern States and seriously infesting corn and tomatoes in southern Indiana, Illinois, Missouri, and Louisiana.

The stalk borer continues to be reported as attracting an unusual amount of attention in New England and the East-Central States, the reports extending westward to Iowa, Nebraska, and Missouri.

Small outbreaks of the armyworm are reported from New England and the Middle Atlantic States, Michigan, and Iowa.

The grape colaspis is seriously abundant in Morgan, Jersey, and Scott Counties, Illinois, in some cases parts of cornfields being plowed up because of this infestation. This insect is also reported as attacking truck crops in Indiana.

The corn root aphid is seriously prevalent in parts of the East-Central States.

The alfalfa weevil is recorded for the first time on the eastern slope of the Rocky Mountains in Fremont, Natrona, and Converse Counties, Wyoming. The pest is now in the head waters of the Missouri River. This pest is reported as more abundant than during the last four years in Utah.

Reports of unusual infestations of alfalfa by thrips have been received from Kansas and Montana.

The Colorado potato beetle is unusually abundant in the southeastern States and Indiana. This pest now seems to be thoroughly established in the Yakima district of Washington.

The potato leafhopper occurs in outbreak form in the Norfolk section of Virginia and generally prevalent in the potato districts of Ohio, Indiana, Wisconsin, Iowa, and South Dakota.

The potato aphid is seriously prevalent in Connecticut and on Long Island, New York.

The known distribution of the Mexican bean beetle has been very considerably increased during this season. The pest has advanced eastward to Monongahela and Tucker Counties in West Virginia, within 20 miles of the Maryland State Line, northward to the southern third of Indiana in Monroe and Fayette Counties, and westward to the northeastern corner of Mississippi. There has been practically no southward and but slight southeastward advance of this pest.

The western spotted cucumber beetle occurs in outbreak form in the Sacramento Valley of California, attacking susceptible truck crops and seriously damaging ripe apricots and peaches.

An unusual pest of onions, one of the phalacrid beetles (Stilbus apicalis Melsh.) is reported from Illinois.

The codling moth is reported as decidedly more serious a pest than usual in Virginia, Ohio, and Illinois. Its injuries are also reported as very severe in Sonoma County, Calif., but much less prevalent than usual in Washington State.

The European red mite has been more troublesome than usual in New England and New York and is reported as also troublesome in the Lake region of Ohio.

The oriental fruit moth is reported as much more abundant than last year in Connecticut and reports of damage have been received from Delaware, North Carolina, and Indiana.

A rather unusual attack of wireworms was received from California, where the sugarbeet wireworm was found seriously damaging the bark of recently set persimmon trees.

Boll weevil infestations continue exceedingly "spotted" over the cotton belt. Infestations are generally light in Texas, Arkansas, Tennessee, northern Louisiana, Alabama, Georgia, western South Carolina, and North Carolina, whereas in the Delta section of Mississippi and Louisiana generally high infestations prevail, as is also the case in southern Georgia and eastern South Carolina and North Carolina.

The corn silk beetle is reported from western Alabama and eastern Mississippi as unduly alarming cotton growers by its attack on cotton.

The cotton flea is reported as doing considerable damage in Georgia and recorded for the first time in Mississippi. In Texas this pest is much less troublesome than it has been for several years, as also seems to be the case in South Carolina and Louisiana.

A cotton leaf worm outbreak now seems to be general throughout Louisiana and Texas, and scattered through Mississippi and Arkansas.

The birch leaf miner is more prevalent than usual in New England and New York States.

In this number of the Bulletin is a summary of termite complaints received by the Bureau during the fiscal year 1925.

OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR JULY, 1925

The month of July as a whole has been particularly cool; considerable rain has fallen in most parts of the Dominion with the result that insect activities have been subnormal.

Although cutworms still continue to be a source of serious loss, particularly in the Provinces of Saskatchewan and Alberta, the peak of the infestation has been reached and a more hopeful outlook is expected.

Though late in emerging, owing to the cool weather, there is a widespread infestation throughout Manitoba of the western wheat-stem sawfly Cephus cinctus Norton.

Mosquitoes have been exceptionally abundant in Manitoba, whereas in Saskatchewan a species of Simulium is reported to have been so numerous as to kill poultry and many small birds, besides inflicting severe bites on many people in the vicinity of Indian Head. From this Province also comes the report that large fields of sunflowers have been completely destroyed by the leaf-feeding beetle Zygogramma exclamatoris Fab.

June beetles have proved a veritable pest in the Province of Quebec, specially in the Eastern Townships and along the border line westward to Lake Champlain. A very heavy flight occurred just at the end of June and no less than 36,000 adults were taken in four trap lanterns. Elms, maples, and ash appeared to suffer the most. In many cases the trees were stripped.

The currant sawfly, Pteronidea ribesii Scop., and the striped cucumber beetle, Diabrotica vittata Fab., have both been very troublesome in different parts of New Brunswick.

The maple leaf cutter, Paraclemensia acerifoliella Fitch, so severe last year especially in the western parts of Quebec Province, has again appeared in large numbers. However, the infestation is not considered as being very severe at present, although reports show Covey Hill to be the centre of a bad attack just now.

In British Columbia a fresh infestation of the Douglas fir bark beetle, Dendroctonus pseudotsugae Hopk., has been discovered on Crazy Creek Watershed, and opposite Canoe.

The strawberry weevil, Anthonomus signatus Say, has been particularly numerous in parts of New Brunswick, as well as in British Columbia.

Grasshoppers in great swarms have been reported from Vernon, Rock Creek, Kettle Valley, and many other points in British Columbia, with the result that the fruit growers have suffered severe losses.

In parts of southern Alberta the false chinch bug, Nysius ericae Schill., has been very numerous.

The Caragana hedges in southern Saskatchewan have been severely attacked by the Caragana beetle, Lytta ruttalki Say. This pest has also fed upon a wide variety of leguminous garden crops.

GRASSHOPPERS (Acridiidae and Locustidae)

- Maryland P. D. Sanders (July 25): Grass hay from a 65-acre meadow at LaPlata was cut and Melanoplus femur-rubrum flew into a 98-acre cornfield, where they were severely injuring the first eight rows. Flight was unnoticed for the two preceding days. Poisoned bran bait was used for control.
- Delaware C. O. Houghton (July 14): To date I have seen none of this species (Melanoplus femur-rubrum DeGeer) and very few individuals of other locusts, owing I believe in large measure to the very dry and hot weather we have had here this year.
- Ohio T. H. Parks (July 25): Damage to oats occurred in some counties before harvest. The insects cut off the grain before it was mature. They migrated from hay fields to corn and are injuring the soybeans planted with the corn. Some injury to corn is beginning and young clover in wheat and oat stubble is being damaged. The outbreaks are local and not country-wide but well scattered over the State. Some poisoning is being done.
- Indiana J. J. Davis (July 20): Abundant at Fortville, eating vegetable garden plants and flowers, especially chrysanthemums. (July 23): First report of injury from Evansville, July 3, where they were reported damaging alfalfa and soybeans. From other sections of the State reports of grasshopper abundance are being received. No general outbreaks, except at Evansville, so far reported. (July 14): Grasshoppers were reported as being bad in clover at North Vernon.
- H. F. Dietz (July 23): Grasshoppers are unusually abundant throughout the greater part of the State and are doing some damage to truck crops and flowering plants. They are also doing considerable feeding on such forage crops as soybeans.
- Illinois W. P. Flint (July 20): Grasshoppers are moderately abundant locally at many points in central and northern Illinois, being more numerous this season than in 1924. No reports of severe damage have yet been received.
- Wisconsin S. B. Fracker (July 10): No economic damage anticipated except on sandy land on Washington Island and in Waushara, Burnett, and possibly Marinette Counties.
- South Dakota H. C. Severin (July 15): A small outbreak of grasshoppers has developed at Ft. Pierre on truck crops, grain, and alfalfa.
- Nebraska M. H. Swenk (June 25-July 25): Grasshoppers have not been very injurious this season so far. In the North Platte Valley they began hatching about June 29 but not in excessive numbers. Within the last few days (July 21) reports of a heavy destruction of grasshoppers in that region by a species of Sarcophaga (probably Kellyi) have been received. The greatest amount of trouble with grasshoppers in this State that has developed so far is in Harlan and Franklin Counties.

- Missouri L. Haseman (July 24): With the cutting of the meadows, grasshoppers are attracting attention in scattering epidemics, but with the rather abundant rains during the fore part of the season it is not likely that serious damage will result.
- Kansas J. W. McColloch (July 20): No serious outbreak has been reported this season. Some damage to alfalfa has occurred in Russell, Logan, and Osborne Counties.
- Oklahoma C. E. Sanborn (July 24): The grasshopper which has been exceedingly injurious this spring has been controlled to a marked extent by use of the poisoned bran mash.
- Mississippi R. W. Harned (July 25): Grasshoppers that were reported as injuring truck crops at Union on June 16 have been identified by Mr. Caudell of the Bureau as Melanoplus atlanis Riley, Trimerotropis sp., and Orphulella pelidna Burm.
- Texas W. A. Baker (July 1): Grasshoppers in the entire section north and east of Dallas are giving no serious trouble to the farmers. The infestations are confined to river and creek bottoms and are very scattered in these places. Aside from Dallas County, very little poison has been used. M. differentialis Thos. comprises at least 90 per cent of all the hoppers present that have come under my observations. At the present time the hoppers are fast reaching maturity and consequently are appearing in the cultivated crops to a certain extent. However, I have yet to find an infestation which the farmer felt he was unable to handle as the hoppers came into his fields.
- Utah G. F. Knowlton (July 21): Grasshoppers are causing comparatively little damage in Utah at the present time.
- I. M. Hawley (July 25): Grasshoppers are doing almost no damage in the State this year with the exception of San Pete County. Here Camnula pellucida Scudd. has been very abundant.
- Montana Stewart Lockwood (July 17): The grasshopper situation in the Yellowstone River Valley is of considerably less importance now than in the fore part of June. In the Stillwater Valley, where they were very numerous at that time, there were seven days of rain and cloudy weather and shortly after that grasshoppers were observed dead, clinging to foliage. At the present time the dead grasshoppers give the vegetation in some fields a decidedly brownish cast.

FIELD CRICKET (Gryllus assimilis Fab.)

- South Dakota H. C. Severin (July 15): The usual large number of black field crickets have hatched in alfalfa fields of the western half of the State. We expect considerable loss from these to alfalfa seed producers.

MORMON CRICKET (Anabrus simplex Hald.)

- Utah I. M. Hawley (July 25): Abundant in the mountains above the Uinta Basin but it is so far from cultivated fields that little damage to them is anticipated.
- CORRECTION In Volume 5, No. 4, page 154, note on Mormon crickets credited to Stewart Lockwood "Montana" should read "Colorado."
- Wyoming Stewart Lockwood (July 17): Complaint has come to this office from Wyoming regarding the Mormon crickets which evidently are doing considerable damage to alfalfa in the upper benches of the mountain regions in central Wyoming. Range also is suffering considerably.

WHITE GRUBS (Phyllophaga spp.)

- Illinois E. C. Foley (June 16): The grubs are raiding several lawns at Toluca. Sod can be rolled up like a rug. I find from 10 to 25 per square foot. They were not noticed last year. Moderately wet this year and last with exception of dry spring this year. I found no parasites so far.
- W.F.P. Flint (July 20): A number of reports of white grub damage have come in from the northern part of the State; in most cases this has consisted of damage to lawns. The feeding by the third-year grubs continued later than usual this season, probably owing to slow growth during 1924. The first adult Cyclocephala beetles were taken in Urbana at lights June 20 of this year, which is nearly one month earlier than the beetles appeared in 1924. The numbers of adults have not been as great as in 1924, but a heavy flight has been noted. Three hundred and forty five adults were taken in three hours at a small light exposed on a porch. One hundred or more beetles have been noted around single street lights in Urbana.
- Wisconsin S. B. Fracker (July 10): Not as many complaints as might be expected and little economic damage is anticipated.
- Nebraska M. H. Swenk (June 25-July 25): In great contrast with last season, there is little complaint of injury by white grubs. Those few that have been received all come from northeastern Nebraska.
- Oklahoma C. E. Sanborn (July 24): The wingless June beetle Phyllophaga cribrata Lec. has done considerable damage in the southwestern part of the State to growing cotton.

CUTWORMS (Noctuidae)

- Maine E. M. Patch (June 24): The "red-backed cutworm", Euxoa ochrogaster Guen., is doing great damage to oats and garden vegetables over an extended area of Hancock County this season.

- Massachusetts A. I. Bourne (July 24): Mr. Lacroix, of the Cranberry Substation, states that the black cutworm, A. ypsilon Rott., is abundant on one cranberry bog this season.
- Connecticut W. E. Britton (June 24): Unusual amount of cutworm injury all over the State to all vegetable crops.
- Delaware J. C. Adams (June): Only about 50 per cent stand of cantaloupes and cucumbers in some fields, owing to attacks of cutworms, in Sussex County.
- Florida F. S. Chamberlin (July 17): Fields of young beans at Quincy are heavily infested with cutworms at the present time.
- Wisconsin S. B. Fracker (July 10): Cutworms have attracted more attention than any other insect with total damage about as usual.
- Iowa C. J. Drake (July 9): The variegated cutworm, Peridroma margaritosa Haw., is doing some damage here and there to alfalfa fields in the State. It seems to be more abundant in the eastern and central portions of Iowa.
- Kansas J. W. McColloch (July 15): Damage by cutworms has been reported from several localities in northeastern Kansas. The damage has occurred to late planted corn on land which was under water during the spring floods.
- Utah I. M. Hawley (July 25): Cutworms have been abundant in gardens and fields all through the spring. The damage is over at the present time.
- Oregon L. P. Rockwood (July 13): Several moths in houses at Forest Grove have laid eggs on window curtains, etc., and others were captured at lights. Larvae in all stages are met with in field. It is believed by the writer that an outbreak of this species (Lycophotia margaritosa Haw.) is getting under way. Lovett reported a serious outbreak in 1914. I believe there has been no serious outbreak since.

FALL ARMYWORM (Laphygma frugiperda S. & A.)

- Louisiana T. E. Holloway and W. E. Haley (June 30): The southern grassworm seems to be rare this year in the vicinity of New Orleans.

WIREWORMS (Elateridae)

- Iowa C. J. Drake (July 9): Wireworms are very abundant in northeastern Iowa this season. Extensive experiments have been started with various chemicals by Prof. B. B. Fulton for the control of wireworms.

ALFALFA WEBWORM (Loxostege commixtalis Walk.)

- Oklahoma C. E. Sanborn (July 24): The alfalfa webworm is quite prevalent in cotton and alfalfa fields.

WHEATHESSIAN FLY (Phytophaga destructor Say)

- Ohio T. H. Parks (July 25): The results of the wheat insect survey show that the Hessian fly is under control in all but a few central and west-central counties. The highest infestation found was 28 per cent of the culms in Darke County, western Ohio. The average infestation for the State is 7 per cent compared with 11 per cent in 1924. The greatest decrease in infestation has been in northeastern counties where there is now only a trace present.
- Iowa C. J. Drake (July 9): During the latter part of June Fred D. Butcher, Extension Entomologist, made a survey of the winter-wheat-growing district of Iowa. Special efforts were made to examine early seeded fields. In several cases a few flaxseeds were found in these fields but practically no commercial damage was observed. Reports from various county agents indicate that the Hessian fly loss for the 1925 wheat crop will be practically nil. In Mills County one field drilled 10 days before the safe-seeding date showed an infestation of 4 per cent. A field of volunteer wheat in Polk County, the only field examined by the county agent and Mr. Butcher that contained the Hessian fly, showed an infestation of 6 per cent. In southeastern Iowa several fields drilled a few days before the safe-seeding date showed an infestation of from 1 to 6 per cent. No fields have been badly damaged by the Hessian fly. Over 90 per cent of the farmers of the winter-wheat-growing portion of the State cooperated in the Hessian fly campaign in the fall of 1924.
- Kansas J. W. McColloch (July 21): There is no question but what the Hessian fly was responsible for a large part of the poor wheat crop in Kansas. From reliable information and from personal field surveys, we are safe in saying that thousands of acres in the State were abandoned before harvest and that where the wheat was not abandoned the loss varied from 5 bushels to, in some cases, 10 bushels per acre. Stafford County estimates the loss due to the Hessian fly at 1,250,000 bushels. In the fields about Riley County it has been found that the fly reduced the crop at least 50 per cent.

WHEAT STEM MAGGOT (Meromyza americana Fitch)

- Iowa C. J. Drake (July 9): The wheat stem maggot is rather abundant over practically the entire winter wheat growing area of the State. Records indicate that this insect is doing more damage to winter wheat than the Hessian fly this year in Iowa.
- South Dakota H. C. Severin (July 20): The average number of wheat stem maggots are with us again this year over the State on wheat, barley, and rye.

Nebraska M. H. Swenk (June 25-July 25): The wheat stem maggot continued to be considerably complained of until harvest.

JOINTWORM (Harmolita tritici Fitch)

North Carolina F. Sherman (June 30): Apparently this insect did more injury than usual in our wheat crop now being harvested, especially in the east-central portion of the State.

CORN

CHINCH BUG (Blissus leucopterus Say)

Ohio E. W. Mendenhall (July 3): A severe outbreak of the chinch bug is reported in Hardin County. The farmers are making a great effort to conquer them. (July 21): Even though the numbers are large little damage has been done so far in Miami County and it is probable that the damage will not be great unless the bugs get into the corn. Now attacking wheat and oats.

T. H. Parks (July 25): Chinch bugs appeared as a pest in several northwestern counties on corn. Hardin County used two carloads of tar for barriers. The bugs seriously damaged some corn, the damage being confined in most cases to outside rows. In some fields corn several rods distant from the border was killed or damaged. One-third of a 20-acre field in Putnam County was destroyed by the bugs.

Illinois W. P. Flint (July 20): The weather of late June and early July has continued very favorable to the development of this insect, the rainfall being below normal in most parts of the State where this insect is numerous. The second generation of nymphs are now appearing in the fields, and conditions are such that we expect a marked increase of this insect during the next two months.

Michigan R. H. Pettit (July 2): Mr. Harman tells me that the chinch bug is quite plentiful in Monroe County, which is located in the southeastern corner of the State.

Nebraska M. H. Swenk (June 25-July 25): The heavy, beating rains which fell during early June over most of the area menacingly infested with chinch bugs produced such a heavy mortality among them that the prospective losses were enormously reduced. One area, with Lancaster and Gage Counties as the center, did not share so heavily in these rains, and as a consequence the chinch bugs have done considerable serious damage in this area. The migration, which began in some fields on June 20, started unusually early and was largely over by July 10. Most of the bugs had gained their wings by July 15.

Kansas J. W. McColloch (July 20): Damage in the northern half of the State was severe, the area of greatest loss being Osborne, Mitchell,

- Missouri L. Haseman (July 24): In scattering epidemics chinch bugs have occurred in various counties, largely throughout the western and southwestern half of the State.
- Arkansas Dwight Isely (July 15): Chinch bugs are unusually abundant in this State this year on corn. Damage has been observed in Lee, St. Francis, Prairie, Crawford, Sebastian, Pulaski, and Washington Counties. A light infestation was also noted in Miller County.
- Mississippi R. W. Harned (July 8): Chinch bugs are still attracting much attention throughout the State. Complaints in regard to their injury to corn are received at this office almost every day. (July 25): A correspondent from Tunica sent us specimens of chinch bugs on July 24, with the statement that they were doing considerable damage to his corn.
- Louisiana W. E. Hinds (July 22): I think that the chinch bug occurrence in this State has been more widespread this year than heretofore known. Some 8 acres of corn were destroyed at Grayson and 20 acres of oats at Bosco. The occurrence ranged as far north as Franklin and Ouachita Parishes.

CORN EAR WORM (Heliothis obsoleta Fab.)

- North Carolina F. Sherman (June 30): Several reports, not many but perhaps more than usual up to this date. We have also had the same reported from ears of corn and also as attacking seed pods of vetch. In this last case the sending showed a serious degree of injury.
- Florida F. S. Chamberlin (July 11): Cornfields in the region about Quincy are heavily infested at the present time. In several fields examined it was estimated that at least 85 per cent of ears contained larvae.
- Indiana H. F. Dietz (July 23): The corn ear worm is a very serious pest of sweet corn in the southwestern part of the State. It is also attacking tomato fruits quite seriously, especially in the region around Elmore and Petersburg. In the vicinity of Indianapolis the corn ear worm has been doing considerable damage to gladiolus flowers by boring into the opening buds.
- Illinois W. P. Flint (July 20): Full grown larvae were found at Urbana on July 9. Some ears of sweet corn examined on this date showed the larvae had left the ears. A few eggs can now be found on freshly silking corn in the field.
- Missouri L. Haseman (July 24): Sweet corn and early field corn is being attacked by a brood of corn ear worms. The oldest of these are now practically mature.
- Louisiana T. E. Holloway and W. E. Haley (June 30): Found to be doing some damage to ears of field corn in the vicinity of New Orleans.

STALK BORER (Papaipema nebris nitela Guen.)

- Massachusetts A. I. Bourne (July 24): Present in about normal abundance, causing its usual amount of damage. The larvae are about two-thirds grown.
- Connecticut M. P. Zappe (July 8): Heavy infestation in corn at Campville. Potatoes are not so severely injured.
- W. E. Britton: They have also been received from Stratford, Thomaston, Taconic, and Monroe.
- Ohio E. W. Mendenhall (July 27): The stalk borer, which is taken by the laymen as the European corn borer many times, keeps us busy investigating. I find this pest quite bad in different parts of the State on dahlias and other plants, especially in Clark and Champaign Counties.
- Indiana J. J. Davis (July 23): We continue to receive numerous reports of injury by this species.
- Illinois W. P. Flint (July 20): Specimens of the larva of this insect continue to come in. Most of the injury reported has been to corn, and some to garden crops.
- Wisconsin S. B. Fracker (July 10): Somewhat more damage than usual. Observed attacking raspberry at Kaukauna; and reports of infested potato sent in from Sparta and tiger lily from West Bend.
- Iowa C. J. Drake (July 9): Very abundant over a large portion of Iowa this year. Reports from various counties indicate that it is doing a considerable amount of damage to corn, oats, wheat, timothy, potatoes, and various garden and truck crops. A few fields of corn have been almost entirely destroyed. In other regions a considerable amount of damage has been done on the margins of fields, especially in regions where weeds have not been kept down in fence rows.
- Missouri L. Haseman (July 24): This insect has attracted more attention in the State this spring than in 20 years and it has done considerable damage, particularly to corn and truck crops. Epidemics are associated with weedy fence rows and newly plowed bottom land.
- Nebraska M. H. Swenk (June 25-July 25): During late June and up to July 10 there were many complaints of injury, some of it rather serious, along the margins of cornfields. The present season was marked by an unusual amount of injury by this insect.

ARMYWORM (Cirphis unipuncta Haw.)

- Massachusetts A. I. Bourne (July 24): Mr. Lacroix, of the Cranberry Substation, states that the armyworm is abundant on one cranberry bog this season.

- Connecticut B. H. Walden (July 8): Heads and leaves of timothy badly injured, leaving little but the bare stalk. About 20 acres injured on one farm at Wallingford.
- Delaware C. O. Houghton (June 15): Several small "armies" reported marching in the vicinity of Middletown, the first that have come to my notice in some time.
- Maryland P. D. Sanders (June 19): At Massey 20 acres of rank timothy and red clover hay was cut and the armyworm marched from the hayfield and destroyed 2 acres of a 6-acre cornfield. Tachina parasite eggs (from 1 to 7) were on at least 90 per cent of the larvae six days after the hay was cut. The weather has been extremely dry.
- Michigan R. H. Pettit (June 24): Armyworms appeared in the southern part of the State and were reported on Monday, June 23, in the mint fields. According to my informant they were not attacking the mint by preference but seemed to prefer other plants growing in the mint fields.
- Iowa C. J. Drake (July 9): Several adults of the armyworm were collected at light in Story County during the latter part of June.

SEMITROPICAL ARMYWORM (Xylomyges eridania Cram.)

- Florida E. W. Berger (July 8): During about the middle part of June E. L. Kelly, Assistant Nursery Inspector, reported an outbreak at Kendall, Pade County. The report further stated that the worms had devoured a field of corn and were migrating to young citrus trees near by.

SOD WEBWORMS (Crambus spp.)

- New York M. D. Leonard (June 30): One field at Penn Yan has 65 to 75 per cent loss on about 2 acres from Crambus zeellus Fern.
- Ohio G. A. Runner (July 5): Sod webworms have caused considerable damage to young corn in several localities in northern Ohio. Larvae collected in corn and in the narrow leaved plantain (Plantago lanceolata) at Vermillion were determined as Crambus caliginosellus Clem.

SUGARCANE BEETLE (Eutheola rugiceps Lec.)

- Alabama J. M. Robinson (June 30): The sugarcane beetle has been attacking corn over Tuscaloosa County.

CORN ROOT WORM (Diabrotica longicornis Say)

- South Dakota H. C. Severin (July 15): A severe outbreak occurred in the vicinity of Utica.

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GRAPE COLASPES (Colaspis brunnea Fab.)

Illinois J. H. Bigger (July 3): Corn damaged by larvae and adults in numbers of fields in Morgan, Jersey, and Scott Counties. In some cases half of a field was plowed up because of this. Adults are now working on leaves and the central shoot.

CORN ROOT APHID (Anuraphis maidi-radiciis Forbes)

Ohio T. H. Parks (July 25): This insect has been reported seriously damaging corn on one or more farms in three central counties.

Illinois J. H. Bigger (June 29-30): Present in all western Illinois in considerable numbers, some fields, perhaps 5 per cent, being seriously damaged at this time.

Wisconsin Mr. Johnson (July 10): Moderate damage at Stoughton. This aphid is rarely injurious in this State.

ALFALFA AND CLOVER

ALFALFA WEEVIL (Phytonomus posticus Gyll.)

Wyoming C. L. Corkins (July 15): A recent survey conducted by Mr. Snow, of the Salt Lake Laboratory, and Mr. Gilbert, of this office, discloses the presence of the alfalfa weevil in Fremont, Natrona, and Converse Counties. This is the first known infestation of this insect on the eastern slope of the Rocky Mountains, and places this pest at the back door of the Mississippi Valley. It is not doing damage here yet. The most weevils found were 198 larvae in 100 strokes of the net. This was at Careyhurst. They were nearly as numerous in Eates Hole in Natrona County. The Big Horn Basin was also surveyed but no weevils were found.

Utah I. M. Hawley (July 25): The weevil has been more abundant and caused more damage than it has in the last four years. The damage is not general but limited to some fields in several parts of the State.

A BLISTER BEETLE (Epicauta lemniscata Fab.)

Kansas J. R. Horton (July 15): Adult beetles of this species were swarming in several places in a field 8 miles southwest of Wichita, the swarming reminding one of swarming bees. The largest single areas covered about $1\frac{1}{2}$ acres. The beetles yielded to calcium cyanide dusting. Leaves were pretty well stripped from several acres.

THRIPS SP.

Kansas R. C. Smith (July 10): This common yellow thrips is more plentiful than in recent years. A field at Manhattan and one at Minneapolis have failed as seed crops. The set of alfalfa seed was very poor, one or two to a stalk being the usual condition.

Montana Stewart Lockwood (July 17): An unidentified thrips is being reported from several of our cooperators as being the most abundant in years in the alfalfa and clover.

CLOVER BUD WEEVIL (Phytonomus nigrirostris Fab.)

Illinois W. P. Flint (July 20): Adults were found in woodlands as early as the first of July and were evidently going into hibernation quarters by that time. There has been a very marked decrease in the numbers of these beetles in clover fields during the last two weeks until they are now rather difficult to take in fields where a month ago they were very abundant.

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

Ohio E. W. Mendenhall (July 3): The clover leaf weevil was found in great numbers just south of Kenton and some damage was done to clover.

Iowa C. J. Drake (July 9): The clover leaf weevil destroyed a few fields of clover in Muscatine and Page Counties.

CLOVER ROOT CURCULIO (Sitona hispidulus Fab.)

Illinois W. P. Flint (July 20): Adults of Sitona, probably S. hispidulus, are abundant in all clover fields where examinations have been made.

CLOVER HEAD CATERPILLAR (Laspeyresia interstinctana Clem.)

Missouri L. Haseman (July 24): The moth of the clover seed caterpillar has been unusually abundant over the same territory.

CLOVER HAY WORM (Hypsopygia costalis Fab.)

Indiana J. J. Davis (July 23): Reported abundant and destructive July 18 at Hammond.

A PYRALID (Nomophila noctuella Schiff.)

Iowa C. N. Ainslie (July 17): This moth is present this summer in large numbers; it appears at lights and is numerous in grass land.

ALFALFA LOOPER (Autographa californica Speyer)

Utah I. M. Hawley (July 25): This insect was found to be destroying some alfalfa fields in the alfalfa seed-producing section of the Uinta Basin. Fields sprayed with calcium arsenate were recovering and growing out of the trouble.

CLOVER SEED CHALCID (Bruchophagus funebris Howard)

Utah

I. M. Hawley (July 25): This insect is always destructive to alfalfa left for seed in the Uinta Basin and Millard County. Dealers estimate the loss as from 10 to 25 per cent, and in some fields from 50 to 75 per cent of the seeds have been infested. This is the greatest handicap to seed production in these parts of the State. Some seed coils opened on July 17 had every seed infested. The fact that some seed is taken from the first crop and some from the second increases the infestation.

BUMBLEBEES

Missouri

L. Haseman (July 24): Bumblebees and bumblebee nests are more abundant in the clover and timothy meadows this summer than they have been in 20 years. Conditions look very favorable for a good clover seed crop.

SORGHUM

CORN LEAF APHID (Aphis maidis Fitch)

Missouri

L. Haseman (July 24): The common sorghum louse has been attracting some attention in central Missouri during the month, feeding largely in the curl on sweet sorghum.

Kansas

J. W. McColloch (July 20): On June 30 this aphid was reported very abundant on kafir at Osage City. A few days later the same correspondent reported that the aphids were becoming winged and disappearing. This same condition was noted at Manhattan. A very heavy infestation occurred in sorghums early in July. Winged forms were produced and the aphids are now abundant on corn.

SOYBEAN

STRIPED BLISTER BEETLE (Epicauta vittata Fab.)

Oklahoma

C. E. Sanborn (July 24): The striped blister beetle is also seriously injuring soybeans.

SPOTTED BLISTER BEETLE (Epicauta maculata Say)

Oklahoma

C. E. Sanborn (July 24): The blister beetle Epicauta maculata is very prevalent in Oklahoma. It is injuring alfalfa to a small extent and soybeans to a great extent.

FRUIT INSECTS

APPLE

APHIDIDAE

Utah Geo. F. Knowlton (July 2): The green apple aphid is damaging apple trees more than usual in the northern part of Utah, and the apple grain aphid less. Around Provo some damage is reported from the rosy apple aphid.

APPLE APHID (Aphis pomi DeG.)

New York W. D. Mills (June 20): Aphis pomi is present in considerable numbers in a few plantings in Wayne County.

C. C. Wagoner (July 18): Young orchards show injurious infestations in quite a few instances in Ulster County.

APPLE GRAIN APHID (Rhopalosiphum prunifoliae Fitch)

Wisconsin S. B. Fracker (July 10): Early alarm on the part of some orchard owners proved unnecessary as there is little direct aphid injury. The fireblight infection is general and heavy, however, and aphids doubtless aided in its distribution.

ROSY APPLE APHID (Anuraphis roseus Baker)

Massachusetts A. I. Bourne (July 24): Colonies of the rosy apple aphid were found still upon apple as late as July 8 or 10. These were kept under observation to note the approximate time of migration to the summer host, which was practically over by the 12th to 15th of July, so that the apples were almost cleared.

Connecticut M. P. Zappe (June 24): Aphids have all left the apple trees now at Milford, New Haven, and Hamden. Syrphid and lady beetle larvae and lady beetle adults present.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Mississippi R. W. Harned (July 8): The woolly apple aphid was reported as quite abundant on apples at Hazlehurst on June 28.

Utah Geo. F. Knowlton (July 21): The woolly apple aphid is killing a number of trees in Springdale and Virgin and is more damaging this season than the other apple aphids.

CODLING MOTH (Carpocapsa pomonella L.)

New York C. R. Crosby and assistants: The codling moth is reported as decidedly unimportant in the Hudson River fruit-growing section of eastern New York.

- Virginia W. S. Hough (July 11): Unusually abundant this year in all apple sections of the State. Some unsprayed orchards showed 90 per cent of the fruit wormy by July 1. Second-brood larvae began to hatch the first week in July. First-brood eggs hatched over a period of six weeks (May 20-July 2) at Winchester.
- Ohio E. H. Parks (July 25): Experienced orchardists are having trouble to control codling moth worms in Ottawa County. The insect is so abundant and drawn out in its development this year that the three regular sprays are not giving protection. All stages of the insect were present in the orchards of this county July 21. Two summer sprays are being recommended.
- Illinois W. P. Flint (July 20): Second-brood codling moth adults are now appearing in numbers. Present indications are that this insect will be present in more than normal numbers in Illinois orchards this season where such orchards have been carefully sprayed.
- Wisconsin S. B. Fracker (July 10): A normal abundance is reported from Washington, Walworth, and Grant Counties.
- Missouri L. Haseman (July 24): The second brood of the codling moth appeared practically on schedule and the July spray in central Missouri was put on between the 10th and 15th of July.
- Washington E. J. Newcomer (July 2): On account of unfavorable weather during most of the time the first brood of moths were flying, the moths were able to lay only about one-third as many eggs as in 1924. As a result, the crop on July 1 is much cleaner than on the same date last year. The first moth of the second brood appeared July 2.
- Oregon B. G. Thompson (June 14): Eggs are beginning to hatch at Corvallis.
- California O. E. Bremner (July 6): In spite of the cold wet spring infestation by this pest is particularly severe this year on both apples and pears in Sonoma County. Wet weather hindered the application of the calyx spray which may account somewhat for conditions.

APPLE AND THORN SKELETONIZER (Hametophila pariana Clerck)

- New York E. P. Felt (July 24): The apple and thorn skeletonizer has not developed in any numbers in most localities, possibly being held in check by frequent heavy rains.

BUD MOTH (Tmetocera ocellana Schiff.)

- Indiana H. F. Dietz (July 23): Contrary to all my expectations, I find that the bud moth is a very common pest of nursery stock in Vanderburg, Gibson, and Perry Counties.

FRUIT TREE LEAF ROLLER (Archips argyrospila Walk.)

Utah I. M. Hawley (July 25): Abundant in orchards in and near Logan in spite of the cold winter.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Massachusetts A. I. Bourne (July 24): We found the first eggs of the apple tent caterpillar on June 23.

SPRING CANCKER WORM (Paleacrita vernata Peck)

Wisconsin S. B. Fracker (July 10): Considerable defoliation but less than during the last three years in the southeastern counties.

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

New York G. E. R. Hervey (July 4): Slight infestations observed in Dutchess County.

Ohio G. A. Runner (July 22): Colonies of the yellow-necked apple caterpillar are numerous in young apple orchards in Erie and Ottawa Counties.

Indiana J. J. Davis (July 24): Description indicates injury by this species at Plainfield.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

New York C. R. Crosby and assistants: Reported as scatteringly numerous in Greene, Dutchess, and Columbia Counties in eastern New York.

TARNISHED PLANT BUG (Lygus pratensis L.)

Connecticut M. P. Zappe (July 21): Causing severe injury by stunting the growing tips of one-year apple trees in nurseries at Durham, Rocky Hill, and Ellington. Apparently more abundant than last year.

APPLE LEAFHOPPER (Empoasca mali LeB.)

New York C. R. Crosby and assistants (June 27): Leafhoppers are found abundantly on two-year-old apple trees at Honeoye Falls. (July 18): In the nursery one and two year old trees are being severely injured. Owners of a large nursery state that these insects are present in numbers larger than they have ever experienced before.

A LEAFHOPPER (Empoasca fabae Harr.)

Wisconsin S. B. Fracker (July 10): Scattered reports in June with no material damage.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

- New York E. P. Felt (July 24): R. E. Horsey reports that the San Jose scale has lightly infested plums and also Rhamnus at Rochester.
- Indiana H. F. Dietz (July 20): Throughout the whole southwestern section of the State the San Jose scale is quite abundant on neglected fruit trees. In the vicinity of Tell City and Evansville fruit trees that have not been sprayed have been severely injured by this pest.
- California L. O. Haupt (July 6): The San Jose scale has shown up abundantly in deciduous fruit orchards, doing severe damage to peaches, prunes, apricots, and apples at Hanford.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

- Indiana H. F. Dietz (July 23): An interesting record is the occurrence of the oyster-shell scale, apple form of Glenn, on apple nursery stock in Greene County. This is the first time that I have an authentic record of this scale occurring that far south in the State.
- South Dakota H. C. Severin (July 20): A serious infestation of this scale is found on the Horticultural grounds of the College at Brookings.

SCURFY SCALE (Chionaspis furfura Fitch)

- Indiana J. J. Davis (July 23): I continue to receive report of abundance of this insect. Since the last bulletin it has been reported as abundant on apple in the following counties: Washington, Pulaski, Warren, Marion, and Madison. Apparently abundant only in orchards not regularly sprayed with a dormant spray.

ROUND-HEADED APPLE TREE BORER (Saperda candida Fab.)

- New York C. R. Crosby and assistants (June 27): Several young orchards in Greene County have rather severe infestations.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

- Massachusetts A. I. Bourne (July 24): Mr. Farrar, from Middlesex County, reports that the red mite had started in some cases to cause considerable foliage injury until checked by the recent very heavy rains we have experienced.
- Connecticut Philip Garman (July 24): Observed for the first time in threatening numbers on McIntosh at Branford, North Branford, and Greenwich. More abundant than last year. Dry early in the season; abundant rains later.

- New York E. P. Felt (July 24): The European red spider has appeared here and there in Hudson Valley orchards in sufficient numbers to cause serious injury, unless prevented by spraying or unfavorable weather conditions.
- Ohio G. A. Runner (July 15): Apple orchards showing foliage injury from the European red spider have been noted in practically all of the counties bordering on Lake Erie.
- E. W. Mendenhall (July 27): Shade and fruit trees are badly infested with the common red spider at Springfield.

PEAR

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

- New York C. R. Crosby (June 30): Ten per cent of a pear tree covered at Watertown. The tree has never been sprayed.

CLOVER MITE (Bryobia praetiosa Koch)

- Utah I. M. Hawley (July 25): This mite is very abundant on pear trees near Richfield in San Pete County. In northern Utah they are present in normal numbers. Growers do not as a rule spray for them.

PEAR PLANT BUG (Lygus communis Knight)

- New York C. R. Crosby and assistants (June 27): Young pear orchard infested near Medina, Orleans County. In one orchard in Genesee County serious injury by Lygus invitus was noted.

PEAR SLUG (Caliroa cerasi L.)

- New York C. R. Crosby and assistant (June 27): Eriocampoides limacina has been observed in Columbia County but in no instance has it been causing much damage.

ROSE LEAF BEETLE (Nodonota puncticollis Say)

- New York C. R. Crosby and assistant (June 27): This beetle has caused considerable injury in some orchards in Dutchess County.

PEAR LEAF RUST MITE (Epitrimerus pyri Nalepa)

- California O. E. Bremner (July 6): Injury by this pest is very severe on French prunes around Santa Rosa, in a radius of 10 miles. This is the first time it has been noticed in this county. It is also bad on pears.

QUINCE

QUINCE CURCULIO (Conotrachelus crataegi Walsh)

New York C. R. Crosby and assistants (July 18): Rather serious injury has resulted from the infestation in certain quince and pear orchards in Ontario County. In the few quince plantings found in Greene County this pest is quite abundant and injurious.

PEACH

GREEN PEACH APHID (Myzus persicae Sulz.)

Utah Geo. F. Knowlton (July 2): The green peach aphid has been found damaging peach and truck crops but it is less numerous now than a little earlier in the season.

PEACH BORER (Aegeria exitiosa Say)

Illinois W. P. Flint (July 20): S. C. Chandler reports emergence of the peach tree borer in larger numbers at this date than was the case last year.

COTTONY PEACH SCALE (Pulvinaria amygdali Ckll.)

New York C. R. Crosby and assistant (May 28): Several peach orchards infested at Lockport.
E. P. Felt (July 24): The cottony peach scale has been extremely abundant and somewhat injurious to peach trees in Niagara County, some branches being literally festooned the last of June with the cottony masses of the females.

BLACK PEACH APHID (Anuraphis persicae-niger Smith)

Delaware J. F. Adams (June): By estimate, 30 to 40 per cent of a block of 1,500 fall-planted peach trees have been killed at Milton.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Delaware J. F. Adams (June): Considerable injury to apple, peach, and cherry as usual in Sussex County.

Wisconsin S. B. Fracker (July 10): A normal abundance on apple.

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

Connecticut Philip Garman (June 24): Evidence of first-brood work in twigs is abundant in one large orchard near Wallingford. (July 24): Much more abundant than last year. Second-brood larvae still in twigs and fruit at Wallingford.

Delaware C. O. Houghton and J. F. Adams (June): Marked injury by this species has been observed at Newark and South Delaware.

North Carolina F. Sherman (June 30): For years we have had occasional sendings of twig borers in peach, identified as Anarsia lineatella Zell., etc. During 1924 scouting by Federal workers and ourselves revealed this insect in three localities, with others under suspicion. This spring we have had several reports and sendings and in one case the Oriental moth has been identified, one other was Anarsia sp., and others not determined as yet. We strongly suspect that the oriental moth is present in many more localities than are yet known to us.

Indiana H. F. Dietz (July 23): No peach nursery stock was found to be infested with the oriental fruit moth, although a careful survey of all trees was made. However, in the City of Evansville and in the town of Mt. Vernon very suspicious injury was found on both apple and peach and I feel confident that this was the oriental fruit moth, although the caterpillar had left the injured twigs and positive identification could, therefore, not be made.

TARNISHED PLANT BUG (Lygus pratensis L.)

Indiana H. F. Dietz (July 23): "Cat faced" peaches were quite abundant in one orchard at Mt. Vernon where a heavy crop of peaches occurred. I am not certain just what was decided as the cause of this trouble but, as I remember, it was agreed to be the work of the tarnished plant bug.

GREEN JUNE BEETLE (Cotinis nitida L.)

Indiana H. F. Dietz (July 23): The green fruit beetle was found quite abundant in the southwestern section of the State, feeding largely on peach foliage and grass.

CHERRY

PEAR SLUG (Caliroa cerasi L.)

Connecticut M. P. Zappe (July 21): Causing defoliation of cherry trees at Ellington and Cromwell. One old tree about one-third defoliated. Most of the injury was in the top and south side of tree. It appears to be more abundant this year.

New York C. R. Crosby and assistant: Portions of a block of sweet cherries have been skeletonized in Orange County.

New Jersey R. B. Lott (July 23): Cherry trees in some locations in the northern part of the State are attacked this season by the common pear slug. Trees are defoliated in some cases.

Utah Geo. F. Knowlton (July 21): The pear slug is doing particular damage to cherry trees around American Fork and some orchards in Provo; with a little damage in most localities.

Oregon J. Wilcox (July 1): At Corvallis the larvae are from one-third to nearly full grown.

BLACK CHERRY APHID (Myzus cerasi Fab.)

New York M. D. Leonard (June 25): Infested cherry leaves received from North Cohocton.

Wisconsin S. B. Fracker (July 10): Abundance about as usual at Sturgeon Bay.

CHERRY FRUIT FLIES (Rhagoletis cingulata Loew and C. fausta O.S.)

New York C. R. Crosby and assistant (July 18): Slight infestations were found in orchards sprayed according to the directions given out by the experiment station. In general, injury from this pest in Onondaga County is not as severe as last year.

Oregon J. Wilcox (June 14): First adult fly of Rhagoletis cingulata observed at Salem.

UGLY-NEST CATERPILLAR (Archips cerasivorana Fitch)

New York E. P. Felt (July 24): The ugly nest cherry worm is defoliating and webbing together many of the chokecherry bushes at Woodgate in the Adirondacks.

CHERRY SCALE (Aspidiotus forbesi Johns.)

New Jersey R. B. Lott (July 20): The underside of large sweet cherry limbs are completely covered with Aspidiaspis forbesi, causing death of many large limbs at East Orange.

BARK BEETLES

Missouri L. Haseman (July 24): A number of complaints of bark beetles attacking cherry trees have been received during the month. Their attack has usually been observed on cherry trees weakened or dying from other causes, but the beetles have been held responsible for the damage.

PLUM

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Massachusetts A. I. Bourne (July 24): Mr. Farrar, from Middlesex County, reports the curculio as being unusually abundant in that particular section and scarring the fruit very badly. Reports are coming in from the eastern part of the State of the occurrence of the plum curculio in some places in more than normal abundance. However, it is very clearly the case that the percentage of damage varies directly with the care which has been exercised in treatment of the orchard, particularly as to orchard sanitation and spraying.

PLUM APHID (Myzus mahaleb Fons.)

New York C. R. Crosby and assistant (June 20): Myzus mahaleb is becoming abundant enough in Orleans County to warrant the use of control measures in some instances.

RUSTY PLUM APHID (Hysteroneura setariae Thos.)

Utah Geo. F. Knowlton (July 2): The rusty brown plum aphid is damaging plums, curling the leaves, and attacking the young tips of the twigs severely.

RED SPIDER (Tetranychus telarius L.)

California T. D. Urbahn (July 3): In the Sacramento Valley this mite is about three weeks later than last year in causing injury to appear on trees but is developing very rapidly and from present indications many orchards will be defoliated unless thorough spraying is immediately practiced.

PLUM GOUGER (Anthonomus scutellaris Lec.)

Mississippi R. W. Harned (July 3): The plum gouger was recently received from Woodville, in Wilkinson County, along with a number of plums that had been attacked. This insect probably always occurs in this State, but this is the first record that we have of it.

FLOWER THRIPS (Frankliniella tritici Fitch)

California O. E. Bremner (July 6): This thrips has been increasing and its damage has been greater for the last few years. It is worse than ever this year because of abundant vegetation. It is very bad on Mammoth blackberries, growing ends of prunes, etc., in Sonoma County.

RASPBERRY

RED SPIDER (Tetranychus telarius L.)

Indiana H. F. Dietz (July 23): This was a common pest of black raspberries throughout the southwestern section of the State and in the town of Petersburg was causing severe rusting of the foliage of such trees as hard and soft maple. In Indianapolis it is likewise very abundant on hard maple shade trees. Contrary to expectations, the evergreens in the southwestern part of the State were not severely injured by this pest, owing to the remedial measures such as weak oil and soap and sulfur sprays that are being used to prevent injury.

RED-NECKED CANE BORER (Agilus ruficollis Fab.)

Wisconsin S. B. Fracker (July 10): So far this insect appears much less common than usual in this State. Attacking raspberry at Marion, Waupaca County.

GRAPE

ROSE CHAFER (Macrodactylus subspinosus Fab.)

- New York C. R. Crosby and assistants: This pest is generally less prevalent than usual throughout the State. The only serious damage reported is from East Syracuse.
- Ohio and Pennsylvania G. A. Runner (July 5): Injury to grape, peach, and apple noted in numerous localities. In the northeastern counties of Ohio the beetles were reported more numerous than in 1924.
- Wisconsin S. B. Fracker (July 10): Damage at Oconto Falls on sumac, corn, and oats and at Cadott on corn, somewhat more abundant than usual.

GRAPE PLUME MOTM (Oxyptilus periscelidactylus Fitch)

- Massachusetts A. I. Bourne (July 24): The moths of the grape plume moth emerged about the middle of June. Infestation reported from Waltham and vicinity was rather heavy.

GRAPE LEAFHOPPER (Erythroneura comes Say)

- New York C. R. Crosby and assistants: This insect is reported as quite numerous in the lower Hudson River Valley in Columbia, Dutchess, and Orange Counties but not at all serious in the Lake grape belt.
- Massachusetts A. I. Bourne (July 24): Mr. Farrar, from Middlesex County, reports that the grape leafhopper is abundant.
- Ohio G. A. Runner (July 22): Injury from overwintering adults and the first brood of nymphs has been severe in some localities. Most of the first brood of nymphs of the three-banded grape leafhopper, E. tricinota Fitch, var. cymbium McAtee, the most abundant and destructive species in the Sandusky and Lake Erie Island grape district, had transformed to the adult stage by July 20 and nymphs of the second brood are beginning to appear.
- Indiana C. R. Cleveland (July 20): Now abundant on grape at Lafayette, causing severe spotting of leaves.
- California F. P. Boullard (July 7): Damage is not general in Fresno County. However, some vineyards will sustain considerable damage by the adult hopper at this time.

GRAPE VINE APHID (Aphis illinoisensis Shim.)

- Ohio G. A. Runner (July 20): The grape vine aphid is common on the terminal growth in many vineyards at Sandusky. The aphids are not numerous enough to cause serious damage.

GRAPE ROOT WORM (Fidia viticida Walsh)

Ohio G. A. Runner (July 18): Feeding marks of the adults of the grape root worm were first noted on June 19. In unsprayed vineyards adults were numerous during the first week in July. Egg clusters were numerous in vineyards in the Sandusky district on July 18. (July 25): The beetles were more common than usual in many commercial vineyards throughout the Erie Grape Belt.

RED SPIDER (Tetranychus telarius L.)

California F. P. Roullard (July 7): Most of the damage is being done to peach and fig trees and Zinfandell grapevines. Other varieties of grapes are not touched. Shade trees also are affected.

GRAPE LEAF FOLDER (Desmia funeralis Hbn.)

Mississippi R. W. Harned (July 25): A complaint, accompanied by specimens, was received from Sturgis in Oktibbeha County on July 15 in regard to the grape leaf folder, Desmia funeralis, causing injury to grapes.

EIGHT-SPOTTED FORESTER (Alypia octomaculata Fab.)

Massachusetts J. V. Schaffner, Jr. (July 25): Abundant in several residential towns about Boston. People having one or two grapevines in the yards of their homes are having the most trouble. In some cases the vines are completely defoliated.

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Ohio G. A. Runner (July 20): Injury by the first brood of larvae of the grape berry moth has been more severe than in 1924.

Mississippi R. W. Harned (July 25): Complaints were received recently from Pascagoula, in Jackson County, and from Columbia, in Marion County, in regard to the grape berry moth on grape. Specimens were also received from these localities.

CURRENT

CURRENT APHID (Myzus ribis L.)

Wisconsin S. B. Fracker (July 10): Normal abundance this year in the southern half of the State.

Utah Geo. F. Knowlton (July 2): The currant aphid has been observed curling the leaves of red currants around Ogden, Salt Lake, and Logan.

IMPORTED CURRANT WORM (Pteronidea ribesi Scop.)

Wisconsin

S. B. Fracker (July 10): Defoliation general throughout the State in unsprayed plantings of currants and gooseberries.

RED SPIDER (Tetranychus telarius L.)

New Mexico

J. R. Douglass (July 19): The red spider is causing serious damage to currant bushes in certain localities in the Estancia Valley.

CRANBERRY

CORRECTION:

A. I. Bourne (July 24): The report of the cranberry weevil as Anthonomus suturalis Lec., published in Insect Pest Survey Bulletin, Vol. 5, No. 4, July 1, 1925, page 181, should read Anthonomus musculus Say.

BLACK-HEADED FIREWORM (Rhopobota naevana Huebn.)

Massachusetts

A. I. Bourne (July 24): The second brood of the blackhead fireworm has been under way since approximately the 12th to 15th of June.

A LEAF BEETLE (Colaspis favosa Say)

Mississippi

R. W. Harned (July 8): On June 22 specimens of Colaspis favosa were found damaging blueberries at Gulfport.

PECAN AND WALNUT

OBSURE SCALE (Chrysomphalus obscurus Comst.)

Indiana

H. F. Dietz (July 23): In the Burnett Pond region in the northwestern corner of Posey County pecans were found to be heavily infested with the obscure scale. Light infestations of this scale were also found at Rockport, in Spencer County, on pecan and at Evansville on oak.

WALNUT APHID (Chromaphis juglandicola Kalt.)

Utah

Geo. F. Knowlton (July 21): The walnut aphid is causing damage, especially early in the spring, in the southern part of Utah. There is less in the northern part of the State.

CITRUS

CORRECTION

A. E. Bottell (May 22): In Vol. 5, No. 4, page 182, Tetranychus citri McGregor should read Paratetranychus citri McGregor.

BLISTER BEETLES (Meloidae)

- Alabama J. M. Robinson (June 30): The Meloidae have been attacking potatoes in some portions of the State.
- Kansas J. W. McColloch (July 20): Several species of blister beetles are present this year. The principal damage has been to alfalfa, potatoes, and tomatoes. At Manhattan the beetles stripped the blossoms from alfalfa which was being left for seed.

THREE-LINED FIG BORER (Ptychodes trilineatus L.)

- Mississippi Troy Thompson: The three-lined fig borer is causing quite a bit of damage to the figs in the section about Hancock County and part of Pearl River County. I have observed several places where fully 50 per cent of the trees are dead or will die.

SUGAR-BEET WIREWORM (Phelates californicus Mann.)

- California R. E. Campbell (May 30): A sandy field of 15 acres at El Monte, set to walnuts, and interset with persimmons and plums was badly infested with wireworms. The land had been plowed to the trees so the soil was 2 or 3 inches higher around the trunks. The persimmon trees were being attacked by the wireworms, which were feeding on the bark above the roots but just beneath the surface of the soil. As many as 72 wireworms were taken feeding in a single persimmon trunk, but only an occasional wireworm was found in a plum trunk, and none in the walnuts.

TRUCK-CROP INSECTS

MISCELLANEOUS FEEDERS

BLISTER BEETLES (Meloidae)

- Indiana Harry F. Dietz (July 23): Blister beetles, Epicauta spp., are only moderately abundant, no heavy infestation having been observed or reported.
- Mississippi C. G. Wallace (July 21): Epicauta lemniscata Fab. is reported from Water Valley with the statement that practically all foliage is eaten off of 25 plants.
- R. W. Harned (July 25): Blister beetles, identified as the species Epicauta lemniscata were received on July 7 from Glendora, where they were reported as injuring cotton. Specimens of the same species were also received from Water Valley, where they were reported as injurious to truck crops.

Arkansas W. J. Baerg (July 27): The first complaint of blister beetles came from Benton County July 15; others have since come from Monroe and Washington Counties as attacking potato, soybeans, cotton, and clematis. The species so far reported are the striped and the black blister beetles.

Nebraska M. H. Swenk (June 25-July 25): A few complaints of injury in gardens by the blister beetles Epicauta lemniscata and E. cinerea Forst. were received from July 3 to 20.

GRAPE COLASPIS (Colaspis brunnea Fab.)

Indiana J. J. Davis (July 23): The clover white grub adults (Colaspis brunnea) have been reported damaging strawberry, snap beans, and soybeans at New Albany, July 17, and snap beans at Salem, July 20. Have observed this beetle injuring these crops at other localities in southern Indiana during the past month.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Wisconsin Bayfield Canning Company (July 10): This insect is reported from Bayfield as causing considerable damage to corn seedlings.

Oregon Don C. Note (June 17): Attacking melons, cucumber, beans, corn, barley, and wheat in various parts of the State. Infestation apparently heaviest in cold, damp soil containing considerable decaying vegetable matter. Cold, wet spring favorable to development. Injury not confined to any one part of the State. Destroyed 12 acres of melons in Morrow County. Had to reseed twice. Destroyed large areas of barley and wheat on the Tule Lake Beds of Lake County. Destroyed a quarter acre of beans in Washington County. Destroyed two acres of cucumbers in Marion County; had to reseed. Numerous reports of its destructive character received from other western counties as far south as Jackson County.

Utah I. H. Hawley (July 25): This insect has been reported as injurious to beans in Millard County. The soil is heavy and contains much organic matter. This pest is not often destructive in this State, yet it has been reported from this county three times in four years.

GARDEN SLUGS (Agriolimax agrestis L.)

Utah I. H. Hawley (July 25): Destructive to beans in Millard County and in the gardens in and around Salt Lake City.

APHIDIDAE

Utah George F. Knowlton (July 21): Truck crops generally were badly infested with aphids this spring, but these insects are found in much smaller numbers at the present time, although some cases of damage to tomatoes and beets are still found.

PALE-STRIPED FLEA BEETLE (Systema taeniata Blanda Melsh.)

Nebraska H. H. Srenk (June 25-July 25): In Dawes County during the last week in June there was injury to garden truck by the pale-striped flea beetle.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York C. R. Crosby and assistants: The usual amount of damage in Monroe County to potatoes by this insect is being caused this year.

Virginia Herbert Spencer (July 3): Potato beetles are somewhat more numerous than usual.

North Carolina F. Sherman (June 30): The potato beetle was worse than usual in the commercial early-potato fields in the eastern part of the State.

Florida E. W. Berger (July 8): On May 22, Mr. J. C. Goodwin, Nursery Inspector, reported observing Leptinotarsa decemlineata in abundance on weeds, including careless weed (Amaranthus sp.) at or near Grand Ridge.

Indiana Harry F. Dietz (July 23): Throughout the whole southwestern section of the State the Colorado potato beetle has been unusually abundant.

Wisconsin S. B. Fracker (July 10): Potato beetles seem to be normally abundant throughout the potato growing sections of this State. Beetles were mating in Clark County on June 26, and were rather abundant in a belt extending diagonally across the State from Polk County to Ozaukee County.

Washington Clipping from Yakima Herald (July 2): The beetles are found from one end of the county to the other. Some have been found in the Naches district and some have been reported from many other districts of the county.

"I am satisfied that the infestation in the Naches district has come through tourist travel," said Mr. Close. "There is no use in fooling ourselves concerning the control of the Colorado potato beetle. We can not now exterminate it or keep it exterminated in the county. The best we can do is to watch it closely and combat it and come as near annihilating it as possible."

POTATO LEAFHOPPER (Empoasca mali LeB.)

Virginia H. Spencer (July 3): We have had quite a severe outbreak of potato leafhoppers, causing considerable hopperburn, which we seldom encounter in this section. The damage came when the potatoes were rather mature, just a few weeks before the time of digging. No control measures were applied in this section (Norfolk) for the leafhoppers.

- Ohio T. H. Parks (July 25): The potato leafhopper continues to be the major potato insect pest in Ohio. The bulk of the commercial crop of late potatoes is planted too late to be damaged by the Colorado potato beetles but does not escape the leafhopper. Plenty of rains are helping the crop and the first Bordeaux spray has been applied by many growers.
- Iowa Carl J. Drake (July 9): The potato leafhopper is doing considerable damage to unsprayed potatoes in the State this year. It seems to be more abundant in the eastern portion of Iowa.
- South Dakota H. C. Severin (July 15): The potato leafhopper is general throughout the State on potatoes, but severe on Caragana.

A LEAFHOPPER (Empoasca fabae Harr.)

- Indiana C. R. Cleveland (July 20): Adults and first-brood nymphs began to be abundant on early potatoes at Lafayette June 24, an unusually early date for abundance of this insect in this locality, due apparently to hot dry weather in early June. Still abundant but has not increased greatly during July; apparently checked by recent wet weather.
- Wisconsin S. B. Fracker (July 10): Appeared on potato later than usual but hopperburn is now evident on early varieties at least at Sparta.

POTATO APHID (Illinoia solanifolii Ashm.)

- Connecticut W. E. Britton (July 24): Reported to me by A. E. Wilkinson, Vegetable Specialist, Extension Department, Storrs College, with statement that 100 acres were badly injured around Middletown, Stratford, Bridgeport, Westport, Trumbull; Windham, New London, and Tolland Counties were also reported.
- New York C. R. Crosby and assistants: In certain localities in Nassau County the vines have been completely killed. In all localities the aphids present in large numbers.
- Indiana J. J. Davis (July 23): Abundant on potato at Schererville, July 13. Specimens not seen.

TOBACCO WORM (Protoparce quinquemaculata Haw.)

- Indiana Harry F. Dietz (July 23): The tomato sphingid was very abundant in the vicinity of Petersburg.

AUSTRALIAN TOMATO WEEVIL (Listroderes obliquus Gyll.)

GENERAL
STATEMENT

J. E. Graf: The most recent survey carried on under the direction of the Office of Truck-Crop Insect Investigations, B. E., indicates the following distribution of this pest. In Louisiana it is recorded from Washington, Tangipahoa, Livingston, East Baton Rouge, St. Tammany, St. Helena, East Feliciana, and West Feliciana Parishes.

In Alabama, Mobile, Clarke, Baldwin, Escambia, Washington, Covington, and Conecuh Counties. In Mississippi, Hancock, Jackson, Pike, Lamar, Adams, Greene, Harrison, Wayne, Walthall, Forest, Wilkinson, Covington, Stone, Lincoln, Marion, Pearl River, Lawrence, and Jones Counties, and in Florida, in Escambia and Walton Counties.

A NEW TOMATO WEEVIL (Listroderes apicalis Waterh.)

Louisiana

J. E. Graf: Recent Survey carried on under the direction of the Bureau of Entomology indicates that this pest is present in the following Parishes in Louisiana, Tangipahoa, St. Tammany, Livingston, St. Helena, and East Baton Rouge.

TOMATO WORM (Protoparce sexta Johan.)

Indiana

Harry F. Dietz (July 23): The tomato sphingid was very abundant in the vicinity of Petersburg.

Mississippi

Troy Thompson (July 9): The hornworm is scarcer at Waveland than I have ever observed it.

CORN EARWORM (Heliothis obsoleta Fab.)

Mississippi

Troy Thompson (July 9): The tomato fruitworm is scarcer at Waveland than I have ever observed them.

SOUTHERN GREEN STINK BUG (Nezara viridula L.)

Louisiana

W. E. Hinds (July 22): We have had reports of southern green stink bugs attacking ripening tomatoes in very injurious numbers.

CARROT BEETLE (Ligyrus gibbosus DeG.)

Kansas

J. W. McColloch (July 10): Adults of this species were received from Hugoton with the information that they were thick around the roots of tomato plants and causing the plants to die.

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

Louisiana

W. E. Hinds (July 22): We have had reports of leaf-footed plant bugs attacking ripening tomatoes in very injurious numbers.

GREEN PEACH APHID (Myzus persicae Sulz.)

Indiana

C. R. Cleveland (July 20): A heavy invasion of winged migrants occurred on tomato at Lafayette beginning June 27, lasting for a week or ten days. Numerous wingless progeny began to develop at once, but the heavy rains of early July appear to have so thoroughly checked the infestation that at present only an occasional individual is to be found here and there. Extensive spread of mosaic in all fields observed occurred following the aphid invasion, the disease symptoms appearing about two weeks following the period

of greatest abundance of the aphid. This is the usual incubation period of the disease. We have experimentally demonstrated the ability of the species to transmit tomato mosaic, and it therefore appears most probable that the great degree of disease spread in this instance may be definitely traced to the heavy infestation by this aphid.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

- Indiana J. J. Davis (July 23): Generally abundant. Reports received July 1 to 18 from all over the State.
- Wisconsin S. B. Fracker (July 10): At Oshkosh this insect was attacking cabbage. Abundance as compared with an average year seems to be less.
- Utah George F. Knowlton (July 21): Cabbage worms are causing considerable damage in localities where cabbage is not treated.

CABBAGE APHID (Brevicoryne brassicae L.)

- New York C. R. Crosby and assistants: The maturer plants in Nassau County seem to be able to withstand the attack of the lice very well but a large number of the younger plants are receiving serious injury. In Erie County it is quite abundant in certain plantings.
- Indiana J. J. Davis (July 23): Abundant at Laotto July 8 and at Richmond on July 16.
- Illinois W. P. Flint (July 20): This insect is abundant, according to C. C. Compton, in the northern part of the State. In some cases severe damage to cabbage has already resulted.
- Utah George F. Knowlton (July 2): The cabbage aphid is particularly numerous for this time of the year, and will probably be a serious pest this summer. (July 21): There is less damage from cabbage aphids than usual for this time of the year.

CABBAGE MAGGOT (Hylemyia brassicae Bouché)

- New York C. R. Crosby and assistants: In Wayne County severe damage was done to early plantings. Injury very severe throughout Onondaga County, while in Monroe County this pest is causing a good deal of damage this season.
- Wisconsin S. B. Fracker (July 10): Worse than usual, especially in southern counties. Very abundant at Madison.

HARLEQUIN BUG (Murgantia histrionica Hahn)

- Mississippi R. W. Harned (July 8): Occasional complaints are still being received in regard to the harlequin cabbage bug. This insect was reported as quite abundant on cabbage at Kroole, in Jackson County, on June 22.
- New Mexico J. R. Douglass (July 19): The harlequin cabbage bug has appeared in greater numbers at Estancia this season than since 1923.

STRAWBERRY

WHITE GRUBS (Phyllophaga spp.)

- Kansas J. W. McColloch (July 18): White grub injury to strawberries has been reported from Wellington and Clearwater during the last week.

GRAPE COLASPIS (Colaspis brunnea Fab.)

- Indiana Harry F. Dietz (July 23): Perhaps the most notable insect pest of southern Indiana was one of the strawberry root worms, Colaspis brunnea Fab. Most of the strawberries examined in the southwestern part of the State looked as if they had been drilled with shot due to the feeding of the adults of this insect. Not only did this insect feed on strawberries but it was found to be feeding on beans, melons of various kinds, and grape.

STRAWBERRY LEAF ROLLER (Ancylis comptana Fröhl.)

- Indiana J. J. Davis (July 23): Reported damaging strawberry at Borden, July 20.
- Utah George F. Knowlton (July 2): The strawberry leaf roller is doing slight damage to patches in Davis and Salt Lake Counties.
- Oregon Don C. Mote (June 16): All leaves rolled, larvae nearing maturity, only 2 pupae observed. One four-acre 4-year-old patch 100 per cent infested, meaning every plant with one or more leaves attacked. Two smaller younger beds nearby 10 and 20 per cent infestation, respectively.

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L.)

- New York C. R. Crosby and assistants: Moderate infestation in Orange County was found in several plantings.
- Wisconsin S. B. Fracker (July 10): At Waukesha and Milwaukee there was less than the usual amount of damage to asparagus.

Oregon L. P. Rockwood (July 10): This is the first year we have collected this beetle here although it has been in other parts of the State for a few years past. Insects appear to have worked into this side valley, the Tuslatin Valley, about 5 years after their appearance in the main valley (Willamette)..

BEANS

WIREWORMS (Elateridae)

California Roy E. Campbell (July 1): Wireworms, Phaeletes californicus, have caused considerable damage to beans, particularly limas, in parts of Orange and Ventura Counties.

A WHITE GRUB (Phyllophaga lanceolata Say)

New Mexico J. R. Douglass (July 19): The adults of Phyllophaga lanceolata have been noted feeding on volunteer beans since June 23 in the foothills west of the Estancia Valley. Infestation light, no increase over last season.

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Virginia Neale F. Howard (July 21): In the locality of McCoy, Montgomery County, this insect was reported.

North Carolina Franklin Sherman (June 30): The complaints indicate it as worse than usual in our mountains, where it has been for several years. It is also causing much worry in the foothill section where this is the first year of injury.

Indiana Neale F. Howard (July 21): Reported from Crawford, Dearborn, Harrison, Jennings, Orange, Ripley, Scott, Switzerland, and Washington Counties.

Harry F. Dietz (July 23): No heavy infestations of the Mexican bean beetle were found in the area that we covered. However, we found suspicious injury but no beetles at Tobinsport in Perry County. The counties in which this insect has been found in Indiana in destructive numbers are Clarke, Scott, Washington, Floyd, Crawford, and Orange. It will probably take in the whole southern quarter of the State next year.

J. J. Davis (July 23): First records, by county, in 1925 as follows: Harrison, June 24; Floyd, July 2; Crawford, July 3; Washington, July 7; Dearborn, July 8; Ripley, July 9; Jennings, July 11; Scott, July 11; Orange, July 18; Monroe, July 20; Fayette, July 22. Home garden beans are heavily infested and the adults of the second generation have migrated to the larger canning bean acreage. Considerable damage is anticipated.

Alabama J. M. Robinson (June 30): The Mexican bean beetle is doing its work in restricted territories, especially in the north-central and northeastern parts of the State.

PEAS

PEA APHID (*Illinoia pisi* Kalt.)

Wisconsin S. B. Fracker (July 10): This insect is reported from Barron, Outagamie, Columbia, and Dodge Counties. Compared with an average year it seems to be less abundant than usual.

Utah George F. Knowlton (July 2): Pea aphids were more numerous this year than since 1923, owing apparently to the wet spring. They were damaging peas and alfalfa until the hot weather set in, and since then they are less abundant.

I. M. Hawley (July 25): This plant louse is common on alfalfa in the Uinta Basin. This is especially true where there is a heavy stand. It is not destructive at present. It has been found on canning factory peas in some places but no damage has been reported.

CUCUMBERS

PALE-STRIPED FLEA BEETLE (*Systema taeniata blanda* Melsh.)

Iowa Carl J. Drake (July 9): The small flea beetle *Systema blanda* Melsh. was very abundant on cucurbit plants in the vicinity of Ames during June.

STRIPED CUCUMBER BEETLE (*Diabrotica vittata* Fab.)

New York C. R. Crosby and assistants: Extremely abundant in Wayne and Oswego Counties.

Indiana C. R. Cleveland (July 20): Appeared in highly injurious numbers on young cucumber and melon plants about June 15 at Lafayette. Infestation checked and plants efficiently protected by dusting with calcium arsenate and gypsum (1-20) and also equally well by dusting with arsenate of lead and hydrated lime (1-9).

J. J. Davis (July 23): Reports continuous since last report from all parts of the southern half of the State.

Wisconsin S. B. Fracker (July 10): Very troublesome and injurious as usual.

Iowa Carl J. Drake (July 9): The striped cucumber beetle has been very abundant in Iowa this year. Near Ames 250 adults were found on a single cucurbit plant. In the experimental fields check rows were entirely destroyed within 48 hours after the appearance of the beetle. Dusting with gypsum and calcium arsenate mixture and certain other dusts have given excellent results.

Nebraska M. H. Swenk (June 25-July 25): Complaints of injury by the striped cucumber beetle have been subnormal in number this July.

Texas O. G. Babcock (July 6): For the first time in at least five years the cucumber beetles have not amounted to anything. In some small melon patches not a single beetle is seen, whereas in past years they have been very common. The contrast is very striking.

MELONS

ONION THRIPS (Thrips tabaci L.)

Delaware J. C. Adams (June-July): A thrips which Dr. Adams thinks is this species has been injuring watermelons considerably in certain localities.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

California T. D. Urbahns (July 2): In the Sacramento Valley adult beetles are emerging in unusual abundance apparently in grain and alfalfa fields and attacking ripe apricots and peaches. An apricot grower from Vacaville reports a total loss to this crop. Melons and beets and other crops are suffering considerable loss.

MELON APHID (Aphis gossypii Glov.)

Indiana J. J. Davis (July 23): Many reports from all sections of the State were received from July 8 to 15.

Mississippi Troy Thompson (July 9): The melon aphid is present in one field under my observation, otherwise this section (Hancock County and part of Pearl River County), so far as I know, is unusually free from this pest. The wilt disease of tomatoes is very bad all over this country. Some eggplants are dying from a disease or cause that is very similar to the trouble in the tomatoes.

Nebraska M. H. Swenk (June 25-July 25): Complaints of injury by the melon aphid have been subnormal in number this July.

Texas O. G. Babcock (July 6): Rather late appearing this year in Sonora but now very abundant and doing considerable damage. Natural enemies very few in numbers.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

New York C. R. Crosby and assistants: Considerable damage in Erie County was caused in several localities by this insect.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

- Massachusetts A. I. Bourne (July 24): We found the first eggs of the squash bug in the field on June 27 and 29. They have been reported as being present in large numbers in the Market Garden sections in the eastern part of the State.
- Mississippi R. W. Harned (July 8): Specimens have been received of the common squash bug during the last few days from Yalobusha and Monroe Counties. In both cases the complaints were in regard to their injury to melons.
- Nebraska M. H. Swenk (June 25-July 25): The squash bug has caused fully the usual amount of trouble to cucurbit growers.
- Utah I. M. Hawley (July 25): This old pest has been very common in southern Utah for several years. It is now becoming established in Weber, Boxelder, and Davis Counties in northern Utah. Last year some fields were entirely destroyed and it looks as though there would be some loss this year.

SQUASH BORER (Melittia satyriniformis Hbn.)

- Massachusetts A. I. Bourne (July 24): The moths of the squash vine borer have been observed in the field, but as yet it is too early to note any evidence of their injury.

ONIONS

LESSER ONION FLY (Eumerus strigatus Fall.)

- New York E. P. Felt (July 24): Recent collecting has shown this insect to be somewhat generally distributed in portions of the Hudson and Mohawk Valleys, the flies having been captured in the open at Saratoga, Amsterdam, Schenectady, Albany, Greenville, and Athens, in some cases at least no roots having been purchased locally for several years.

ONION MAGGOT (Hylemyia antiqua Meig.)

- New York C. R. Crosby and assistants: At Elba this insect is attacking onion and is serious on muck areas in this section. Injury is general and quite serious in Wayne and Oswego Counties.
- Indiana J. J. Davis (July 23): Reports of abundance in northern Indiana, especially Steuben County, June 27-July 16.
- Wisconsin S. B. Fracker (July 10): Apparently less troublesome than usual in southern part of the State; some damage in northern section.

Utah

I. M. Hawley (July 25): This pest was apparently introduced into Cache Valley about 1919 or 1920. It has been very destructive in parts of this region and now it has spread to Weber and Davis Counties. These counties are large producers of truck crops. Many onions are raised. There has been some loss this year.

ONION THRIPS (Thrips tabaci L.)

Utah

I. M. Hawley (July 25): The onion thrips were abundant in fields in Davis County on June 20. They have increased rapidly and where not treated have greatly damaged the crop.

A FLOWER BEETLE (Stilbus apicalis Melsh.)

Michigan

R. H. Pettit (July 24): A record has been received of what is apparently injury to onion roots in our Kent County muck-land and which seems to be a case of anew sort of trouble which is at present spreading in one field. The exact locality is Lowell, Michigan. The beetle, Stilbus apicalis Melsh., was identified by Dr. M. H. Hatch, who is stationed here for a time. The damage seems to consist in the eating off of roots of half grown onions by the adult beetles. The patch where the damage occurs is small and covers only a few square yards but it is steadily spreading and bids fair to become serious in this one field, at least. We have been trying out flake cyanide but have not yet received the report as to its value.

PEPPERS

PEPPER WEEVIL (Anthonomus eugenii Cano)

California

J. D. Elmore (July 7): On this date pepper weevils were collected (first occurrence this season) in a field of chili peppers in Orange County that was badly infested last year. It has been estimated that less than 1 per cent of the small buds are infested at this time. Almost mature larvae were found in small buds one-fourth inch in diameter.

BEETS

BANDED FLEA BEETLE (Systema taeniata Say)

Ohio

T. H. Parks (July 25): This insect made necessary the planting over of sugar-beets on some farms in northwestern Ohio. A dust of lime and arsenate of lead was used with apparent success by the Continental Sugar-beet Company.

SUGAR-BEET LEAFHOPPER (Eutettix tenellus Baker)

Utah

George F. Knowlton (July 2): The sugar-beet leafhopper (Eutettix tenellus Baker) is not damaging the beets noticeably so far this spring. only a few beets indicating leaf roll having been found so far.

SPINACH

SPINACH LEAF MINER (Pegomya hyoscyami Panz.)

New York

C. R. Crosby and assistants: In Oswego County a number of crops were rejected on account of this pest.

CARROTS

PARSLEY STALK WEEVIL (Listronotus latiusculus Boh.)

Illinois

W. P. Flint (July 20): Adults of this insect have been bred from larvae taken in carrots in Clinton County. Severe damage is reported to carrots in one area of this county.

EGGPLANT

EGGPLANT LACEBUG (Gargaphia solani Heid.)

Mississippi

R. W. Harned (July 8): On June 29 a complaint accompanied by specimens of the eggplant lacebug, Gargaphia solani, was received from a correspondent from Prairie, in Monroe County. Judging from the abundance of these insects on the leaves received, they were probably causing considerable damage to eggplants at that point.

HOPS

HOP APHID (Phorodon humuli Schrank)

Oregon

Don C. Mote (June 16): Winged migrants, adults, and immature wingless females on leaves in the Willamette Valley have been reported. Some growers have already started spraying operations; others are making preparations.

RADISH

CABBAGE MAGGOT (Hylemyia brassicae Bouché)

South Dakota

H. C. Severin (July 20): An unusually early and severe attack of radish maggots occurred in eastern South Dakota this spring.

SWEET POTATOES

TORTOISE BEETLES (Cassidinae)

Indiana

J. J. Davis (July 23): Tortoise beetle larvae reported injuring sweet potatoes at Cannelton, July 1, and Vincennes, July 7.

Mississippi

R. W. Harned (July 8): Specimens of tortoise beetles identified as Jonthonota nigripes Oliv. and Metriona bivittata Say have been received from Columbus in Lowndes County, where they were reported as damaging sweet potatoes; specimens identified as Chelymorphe cassidea Fab., as damaging sweet potatoes at Shannon in Lee County.

SOUTHERN FIELD - CROP INSECTS

COTTON

BOLL WEEVIL (Anthonomus grandis Boh.)

GENERAL STATEMENT

Cooperative report on status of boll weevil and other cotton insects as of July 15, Delta Laboratory, Tallulah, La.

Weevil infestations continue exceedingly "spotted" over the cottonbelt. In central and northern Texas the infestation is generally light and scattered whereas in a few of the southern counties higher infestations are reported. Infestations are exceedingly light throughout Arkansas and Tennessee. In northern Louisiana weevil infestations are generally light with occasional spots of severe injury, while in southern Louisiana high infestations prevail generally with considerable injury. Some weevil injury has been reported in the Delta Section of Mississippi with generally low infestations in other portions of the State. Alabama and Georgia have generally light and "spotted" infestations in the northern portions with somewhat heavier infestations in the southern portions. Generally light infestations have been reported in the western sections of South Carolina and North Carolina and considerable weevil injury in the eastern section of South Carolina and southeastern section of North Carolina.

North Carolina

F. Sherman (June 30): Specific complaints of boll weevil damage are less than in former years, yet our field workers report that the invasion of fields by hibernated weevils was greater than we have heretofore experienced, especially in the southeastern part of our cotton area -- much less evidence of them in the higher (Piedmont) section. In the east and southeast they have been found as numerous as 300 to 400 hibernated weevils per acre.

Georgia

J. F. Jackson (July 9): In our Survey conducted in 14 counties in a strip extending across Georgia from Burke County on the east to Muscogee and Early Counties on the west we find the percentage of squares infested to be extremely uneven, varying from no infestation to 26.8 per cent with an average of about 0.5 per cent in the eastern part of the State and from 1.8 per cent to 54.0 per cent in the western part of the State, averaging over 20.0 per cent.

Alabama

J. M. Robinson (June 30): Boll weevils have appeared in larger numbers than last year.

J. F. Jackson (July 11): In our survey conducted in 8 counties in the southeastern corner of Alabama extending from Lee to Covington Counties we find the percentage of squares punctured to range from less than 1 per cent to over 16 per cent with an average of 9 per cent punctured.

Mississippi

R. W. Harned (July 8): Boll weevils are still scarce in Mississippi.

Olby Lyle (July 21): The most "spotted" condition of boll weevil infestation I have ever seen at this time of year, is the statement of R. W. Harned, Entomologist of the State Plant Board, after receiving reports from 196 farms in 25 Mississippi counties during the past week. Weevils are apparently most numerous through the central part of the State and in certain localities of the Delta, though many farms in these sections still report no infestation. In the southwestern corner of the State, as well as in the extreme northern counties, few weevils have been found, and there is apparently no immediate necessity for poisoning on most farms in these two sections.

Missouri L. Haseman (July 24): No reports as yet have been received of the actual work of the boll weevil in any of the cotton sections of the State.

Arkansas Dwight Isely (July 15): Boll weevil infestation this year has been confined to restricted areas thus far. Severe damage has occurred in only a few places. From present prospects, the boll weevil injury during the present year should be the lightest which has occurred in Arkansas since the insect has been generally distributed over the State.

Louisiana W. E. Hinds (July 22): Boll weevil multiplication is occurring very rapidly at this time and reaching complete infestation in many fields. There has been practically no natural control in the central and southern part of the State, but the drought has continued this season, also, in northern and western Louisiana.

A BOLL WEEVIL (var. near Anthonomus grandis thurberiae Pierce)

Mexico A. W. Morrill (July 23): In the Yaqui Valley intensive control measures, including fumigation of cotton seed, dusting volunteer cotton plants with calcium arsenate, and hand picking of squares from and under infested volunteer plants, has reduced weevils so that a total of 15 hours' examination of volunteer and seedling cotton July 16 to 18 resulted in finding no trace of the insects. Last year weevil damage amounted to not less than a third bale per acre. This season it will apparently not be appreciable in the Yaqui Valley.

THRIPS (Thysanoptera)

North F. Sherman (June 30): Several seedlings of stunted cotton plants, with crimped leaves, have been received. In two cases a yellowish thrips was found but we are not convinced that it was a primary factor. Dr. Wolf (Pathologist) says the plant resembled the "Crazy Cotton" condition described a year or so ago by Dr. Cook.

Correction In Volume 5, No. 4, page 199, the saltmarsh caterpillar (Estigmene acrea Drury) credited to R. W. Harned, should be Apantesis oithona Stkr.

BEAN THRIPS (Heliothrips fasciatus Perg.)

Mexico

A. W. Morrill (July 23): This pest, previously reported as unusually abundant on peas and cantaloupes in the Yaqui Valley, is now working on cotton. While a large percentage of the lower leaves on plants is more or less affected, the actual damage to the crop is not yet appreciable. Abundance of adults depositing eggs on new leaves threatens considerable damage within 60 days.

A SMALL BUG (Geocoris nunctipes Say)

Georgia

Haliard De La Farelle (July 3): I am sending some specimens of what we have been calling the false chinch bug. These were taken in a cotton patch near Atlanta. The owner of this patch reports typical cotton flea injury, but he did not find the flea and I been wondering if it is possible that this insect does the same sort of injury to the plant as the cotton flea. Determination of this insect made by Mr. McAtee.

CORN SILK BEETLE (Luperodes varicornis Lec.)

Alabama

R. W. Harned (June 30): Have received quite a number of complaints in regard to the damage that these insects are causing. Most of the complaints have come from across the line in Alabama. I have been informed by farmers in Alabama that some of these beetles were sent to Auburn where they were identified as Luperodes davisii Leng.

During the past few days we have carefully investigated the situation in Lamar County. We found that the farmers were unduly alarmed in regard to these insects. Some of them had the idea that their crops would be completely destroyed. These beetles are doing some damage to different kinds of plants, but the damage that is being done by the beetles there is not as serious as that being caused by the drought. These insects are most abundant on corn where they feed especially on the silk. Although more abundant on corn than cotton, their damage to cotton seems to be as great, if not greater, than the damage to corn. On cotton the beetles made holes in the leaves, gnawing the leaf petioles and girdling the twigs. They were also found causing damage to sweet gum trees. It was reported to us that they occurred in large numbers on various other crops and plants.

J. M. Robinson (June 30): Luperodes, probably davisii has been attacking chestnut and gum trees, and spreading from them to cotton and corn. When they get on the corn they either destroy the tassels or the corn silks. In attacking the cotton they destroy the foliage. In one locality they are continuing to spread over the cotton covering several acres. These insects have been

sent in from Wilsonville, Shelby County, Tuscaloosa, Tuscaloosa County, and Vernon, Lamar County.

Mississippi

R. W. Harned (June 30): A number of complaints in regard to the damage that these insects are causing have been received. Some of the complaints have come from the eastern part of Lowndes County. Under date of June 27 the county agent at Purvis, Lamar County, sent us a number of these insects with the statement that they are causing considerable damage to cotton and corn in one field. He writes: "The insect will eat and sting the plant, causing the foliage to die where it has been stung." (July 8): Complaints in regard to these beetles from several different places in the State have been received. They are reported as damaging cotton, corn, and various other plants. Determination made by H. S. Barber 7/14/25 with the following statement: "Luperodes brunneus Crotch which appears wrongly listed as a synonym of varicornis Lec. in the Leng List." (July 20): Specimens from Holcut, Tishomingo County, and Leesdale, Adams County, have been received, with statement that injury has been to cotton chiefly. (July 25): On July 6, specimens of Luperodes brunneus were received from Holcut in Tishomingo County where they were reported as causing serious damage to leaves and squares of cotton plants.

GARDEN WEBWORM (Loxostege similalis Guen.)

Texas

W. A. Baker (July 1): Along the entire route traveled I found only one cotton field that was infested with the garden webworm and which, from reports I have heard, is showing up in considerable numbers in western Texas.

COTTON FLEA (Psallus seriatus Reut.)

Georgia

Haliard De La Parolle (July 3): The insect known as the cotton flea, which I believe is Psallus seriatus (Reut.), has appeared in the State of Georgia, doing considerable damage to Americus and Winder.

Mississippi

R. W. Harned (July 29): The cotton flea, Psallus seriatus, was collected by D. W. Grimes on July 12 on cotton $2\frac{1}{2}$ miles south of Greenville and on July 13 on cotton growing 2 miles north of Leland. Both of these places are in Washington County. In regard to the first field Mr. Grimes wrote: "Plants shedding squares and young bolls. Squares look to be sapped by sucking insect. Some plants with practically no limbs and little fruit." In regard to the second field he wrote as follows: "Some stalks tall and not fruiting well. Leafhoppers and green bugs flying from cotton. Collected one small green plant bug."

The insects collected from these fields were identified by Dr. H. H. Knight, of the Iowa State College, as Psallus seriatus. This is the first definite record that we have of the occurrence of this insect in this State. It is of interest that Mr. Grimes noted the injury to cotton that has been described by Dr. Hunter before he collected the insects.

- Georgia Cooperative report on cotton insects as of July 15: Athens, July 1, Letter from Mr. Frank Ward to Dr. W. D. Hunter. "Before this date considerable hopper injury was indicated. However, this week in the several fields inspected cotton has begun to retain squares and show more nearly normal growth. Last year it was some 3 weeks later than this when the plants began to retain some of their fruit."
- South Carolina Clemson College, July 18, F. H. Lathrop. Hopper damage light and scattered.
- Louisiana Tallulah, July 15, Dr. J. W. Folsom. Hoppers common on cotton, with no apparent injury to the plants.
- Texas Houston, Dr. W. D. Hunter. The cotton hopper is much less abundant in Texas this year than for several seasons. It is attracting practically no attention.
McAllen, July 4, Mr. L. G. Plyler. Cotton hoppers have been found in several fields but apparently have done only slight damage. We have heard no complaints.

W. A. Baker (July 1): The U. S. Experiment Farm at Greenville is reporting a heavy infestation of the so-called "cotton flea", the plants already shedding many of their small squares.

RED SPIDER (Tetranychus telarius L.)

- Alabama Cooperative report on cotton insects as of July 15 :
Auburn, July 19, Mr. J. M. Robinson. The red spider is appearing in various places in the State.
- North Carolina Raleigh, July 18, Mr. Franklin Sherman. Complaints of the red spider have been received, but not generally over the State.
- Missouri L. Haseman (July 24): The cotton red spider has been unusually injurious in southeastern Missouri, but during the last half of July the pest showed signs of clearing up.
- Arkansas Dwight Isley (July 15): The red spider on cotton has been reported from or observed in St. Francis, Craighead, Lee, Faulkner, and Miller Counties. Conditions are favorable this year for serious outbreaks.

COTTON SQUARE BORER (Uranotes melinus Hbn.)

- Texas L. G. Plyler (July 14): The square borer has been found in one or two fields of young cotton in McAllen but not in sufficient numbers to do heavy damage.

SALT-MARSH CATERPILLAR (Estigmene acrea Drury)

- Mexico A. W. Morrill (July 23): For the first time during the past three years this insect has become noticeably abundant in cotton fields in the Yaqui Valley. Infestation generally not injurious up to July 18, average about one caterpillar per cotton plant. Three or

four acres adjoining alfalfa field from which a migration of caterpillars occurred suffered to extent of 85 to 90 per cent of foliage.

BOLL WORM (Heliothis obsoleta Fab.)

Mexico

A. W. Merrill (July 23): Following two seasons during which the bollworm has been practically absent from cotton fields in the Yaqui Valley this insect has shown possibilities of doing considerable damage this season unless controlled by poisoning. Up to July 20 damage practically confined to squares. Examination of 100 squares from five different sections of a 250-acre field showed infestation ranging from 1 to 8 per cent, so far with indications of continued increase during next three weeks.

COTTON APHID (Aphis rosae Glov.)

North
Carolina

F. Sherman (June 30): Several complaints, but sendings show the lady beetle Hippodamia convergens Guer. and also hymenopterous parasites to be active against it.

Kentucky

H. Garman (July 9): The cotton plant louse is rather common in the southwestern counties of the State, where cotton is now being grown. Several reports with specimens have been sent to me in the past two weeks.

Missouri

L. Haseman (July 24): The cotton louse attracted a great deal of attention during the fore part of the month, but parasites and predacious enemies have largely cleaned up the infestation.

GENERAL
STATEMENT

Cooperative Report on Cotton Insects (July 15):

Trenton, Tenn., July 3, Mr. L. H. Halton, County agent. Lice ruining hundreds of acres of cotton in Gibson County.

Tallulah, La., July 15, Dr. J. W. Folsom. Infestations have been widespread but not heavy, except locally. Heavy infestations have been induced in experimental plots by excessive applications of calcium arsenate. The heavy infestations were, however, greatly reduced by rain on July 14 accompanied by a strong wind.

Florence, S. C. July 15, R. W. Moreland. Lice have been present in only one field of calcium-arsenate-dusted cotton and the last observation showed that parasites had the lice under control.

College Station, Tex., July 16, Dr. F. L. Thomas. Lice have been reported as injurious in northern and northwestern Texas. Reports have been received from Floyd, Lubbock, Dickens, Howard, Callahan, and Ward Counties.

Baton Rouge, La., July 17, Dr. W. E. Hinds. Lice increasing very rapidly where 3 applications of calcium arsenate have been given rank cotton.

Auburn, Ala. July 19, Mr. J. M. Robinson. Lice causing much attention in widely distributed portions of State. Infestations varying from 0 to 100 per cent.

Clemson College, S. C. July 18, F. H. Lathrop. Lice injury serious in many fields that have been dusted with calcium arsenate in the coastal plain section.

Raleigh, N. C. July 18, Mr. Franklin Sherman. A few complaints of lice have been received.

Louisiana W. E. Hinds (July 22): Cotton plant lice are increasing very rapidly and especially in areas which have been dusted for weevil control. We are finding that it is easily possible to control these plant lice by using calcium arsenate, 9⁴ parts, by weight, as the carrier for 6 parts of nicotine sulphate and applying this mixture in the late evening when the air is still and warm, using the same machinery that would be used for weevil control work but with a rather heavy application, 8 or 9 pounds per acre of the dust mixture. The cost of plant louse control additional to the weevil control work is only about 75 cents per acre and one application is, we believe, all that will be necessary during the season. In many of our experiments better than 98 per cent control of the lice has been secured by this method of treatment.

Texas W. A. Baker (July 1): In this section (Dallas) the lice were present on cotton to a considerable extent up until about two weeks ago. At this time they are fast leaving the fields and very few fields suffered serious damage from their effects. A peculiar fact about the lice this year was that, in spite of the droughty conditions of the country, they were still working on the plants for about three weeks after the time it is usually considered that lice have done their damage and disappeared.

COTTON LEAF WORM (Alabama argillacea Hbn.)

GENERAL STATEMENT Telegram from B. R. Coad (July 31): Leafworm outbreak general throughout Louisiana, with strong probability that infestation is scattered throughout Mississippi and Arkansas. Demand for poison quite general and sudden.

Louisiana W. E. Hinds (July 13): Empty pupal cases of the leafworm have been found. (July 22): The cotton leafworm occurs at Baton Rouge but in very small numbers. I am expecting several reports of stripping of cotton in this State before August 10.

Texas Cooperative Report On Cotton Insects (July 15):
R. A. Epperson (July 11): On the Mexican side of the Rio Grande near Eagle Pass leafworms are doing considerable damage in some fields and in others very few larvae can be found.
L. G. Flyler (July 4): Leafworms appeared about June 25 and now over 50 per cent of the fields near McAllen and Hidalgo on the river are infested.
Dr. F. L. Thomas (July 16): Paris green and calcium arsenate are still being applied for the leafworm in the areas where the original infestations occurred.

Haiti G. N. Wolcott (June 223): Further regarding Alabama in Haiti, I have just learned that the ants which were so effective in destroying the prepupae were Monomorium destructor Jer., as determined by Dr. Mann. This ant has undoubtedly been introduced into Haiti rather recently as it is not listed by Wheeler and Mann, and is now present not only in Port-au-Prince itself, but at least 15 or 20 miles in

each direction, the farthest south being at Trouin, beyond Leogane (a determination by a Mr. Smith at Illinois), and also at Cape Haitian on the north coast. This record is from the Federal Horticultural Board, an inspector of which held up a shipment of pineapples from this port because of its being infested with ants.

The outbreak of Alabama which I reported may have been preceded by a previous generation in the same fields, but the manager of the plantation had not noted it. The exceptional character of it was that it occurred in the spring; for, so far as we know, outbreaks always have occurred in the fall as far back as people in Haiti remember. This is quite different from the conditions in Porto Rico, where my observations are that some years there are no Alabama at all and sometimes none for two or three years, or possibly longer.

TOBACCO

POTATO TUBER WORM (Phthorimaea operculella Zell.)

Florida

F. S. Chamberlin (July 13): At Quincy a very few split worm larvae have been observed in tobacco fields the past few days. So far the infestation is of no economic importance.

TOMATO WORM (Protoparce sexta Joh.)

Florida

F. S. Chamberlin (July 21): At Quincy the infestation during the month of July was much less than usual.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana

T. E. Holloway and W. E. Haley (June 30): On sugar plantations within 40 miles of New Orleans the writers found the infestation by the sugarcane moth borer to be slight in general.

AN APHID (Sipha flava Forbes)

Porto Rico

Arthur H. Rosenfeld (July 9): While on the north coast the attacks of this aphid in damaging numbers are confined almost exclusively to Uba under the drier conditions of the irrigated south coast region; while Uba is still the decidedly preferred host, some damage is also been frequently on the broad-leaved high-sucrose canes, particularly the popular Barbados Hybrid 10 (12).

WEST INDIAN CANE LEAFHOPPER (Saccharosydne (Delphax) saccharivora Westw.)

Haiti

Geo. N. Wolcott (June 23): Last January my attention was directed to a field of cane near Leogane which was so heavily infested with the West Indian cane leafhopper (fulgorid) Saccharosydne (Delphax) saccharivora Westwood, that the cane was considerably stunted. After the cane was harvested, the young ratoons were only

slightly infested but in March the manager again brought me out to look at the conditions. The infestation was much more severe and had spread to adjoining fields. A few days later I demonstrated on a few stools of cane how easily the nymphs and adults could be killed with calcium cyanide dust. However, the manager was afraid he might also kill some Haitians, which would be an expensive matter, and nothing was done in the way of control. About a month ago I visited the field and found that the infestation had almost disappeared, so much so indeed that the class demonstration that I had planned was not an entire success. More recently the manager reports the insects all gone, or at least so nearly gone as to be causing no damage.

FOREST AND SHADE - TREE INSECTS

GENERAL FEEDERS

A BEE (Megachile perbrevis Cresson)

Georgia Haliard De La Parelle (July 3): I am sending specimens of one of the carpenter bees which I believe is Megachile sp. These bees came to Georgia in a shipment of red wood shingles from somewhere in the West. They were sent to this office by Dr. H. P. Stuckey, Director of the Experiment Station, Experiment, Ga. (Identified as Megachile perbrevis Cresson by S. A. Rohwer.)

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

California L. O. Haupt (July 6): The cottony cushion scale has shown up abundantly on ornamental trees in Hanford, doing severe damage to maples. Some control measures consisting of oil sprays have been used on smaller ornamentals. No attempt has been made to control it on maples except for the introduction of parasitic and predacious insects.

PERIODICAL CICADA (Tibicina septendecim L.)

Louisiana W. E. Hinds (July 22): With reference to the possible appearance of the periodical cicada in Morehouse Parish, I would say that I did not see specimens and am not positive as to the identification of the species. Professor Harned has written raising a question relative thereto and stating that in Mississippi he has found only another species attacking cotton and believes that such species, Tibicen ?ventripennis Say is the one responsible for the attack on cotton, associated in the report to us with the periodical cicada.

GIPSY MOTH (Porthetria dispar L.)

Massachusetts A. I. Bourne (July 24): Mr. Lacroix, of the Cranberry Substation, reports, under date of the 15th, serious injury to cranberries by gipsy moths in isolated localities in the towns of Harwich, Dennis, Brewster, and Falmouth. He also

notes considerable stripping in the woods of the towns in that immediate region. He reports noting numbers of male gypsy moths in flight between Woods Hole and Falmouth on July 19.

Monthly News Letter, Bureau of Entomology, No.133 (May): Parasetigena segregata Rond., one of the European tachinid parasites of the gypsy moth, which was obtained from several parts of Europe last summer, hibernated successfully in the hibernating cages in the laboratory yard at Melrose Highlands. Seven strong colonies of adults, each containing over 1,000 fertilized females, have been liberated in the moth-infested area of New England this spring.

Monthly Letter, Bureau of Entomology, No. 133 (May): The spring colonization of Anastatus bifasciatus Fonsc. is practically complete, nearly 2,500,000 parasites having been colonized.

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S.& A.)

New York E. P. Felt (July 24): R. E. Horsey reports that the white-marked tussock moth has been more numerous at Rochester than for several years past.

Nebraska M. H. Swenk (June 25-July 25): The white-marked tussock moth continued to cause annoyance and injury to trees and shrubs during the first two weeks in July.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Indiana H. F. Dietz (July 23): The forest tent caterpillar is quite common in Martin County in the vicinity of Burns City.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Indiana J. J. Davis (July 23): Abundant in Jennings, Scott, and Jefferson Counties, defoliating arborvitae, maple, and other shade trees, June 23 to July 16.

H. F. Dietz (July 23): The bagworm moth is exceedingly common throughout the southwestern part of the State, heavy infestations having been noted at Burns City, Princeton, Evansville, and Terre Haute. This pest is exceedingly abundant also in Indianapolis. Shade trees, such as various maples, boxelder, and evergreens, are suffering most from its attack.

Mississippi R. W. Harned (July 8): Specimens of the bagworm were received from Rosedale on June 25, where they were reported as seriously damaging arborvitae. Specimens that were damaging arborvitae were also received on June 23 from Dunleith.

Kansas J. W. McColloch (July 20): The following reports have been received during the past month: At Topeka, defoliation of

shade trees; Kansas City, defoliation of boxelder; Rossville, defoliation of boxelder; and Corbin, injury to evergreens.

FALL WEBWORM (Hyphantria cunea Drury)

Massachusetts A. I. Bourne (July 24): We noted the first beginning of the webs of the fall webworm on the 18th to the 20th of this month.

Indiana H. F. Dietz (July 23): Quite common in Martin County in the vicinity of Burns City.

ARBORVITAE

ARBORVITAE LEAF MINER (Argyresthia thuiella Pack.)

New York M. D. Leonard (June 26): Infested arborvitae twigs were received from Saratoga Springs.

Wisconsin S. B. Fracker (July 10): Slight damage to arborvitae at Milwaukee.

North Carolina F. Sherman (June 30): One complaint of "spider-mites" from a nursery. Complaint of this is unusual with us.

BIRCH

BIRCH LEAF MINER (Fenusa pumila Klug)

Massachusetts A. I. Bourne (July 24): We have been noting the injury caused by the birch leaf miner to be very generally distributed throughout the length of the State. Even in the higher sections the injury is very noticeable.

J. V. Schaffner, Jr. (July 25): A birch leaf miner (sawfly), probably Fenusa pumila Klug, is working on gray birch sprouts throughout eastern Massachusetts. We have reports as far northwest as Ipswich.

Connecticut W. E. Britton (July 24): Chiefly on Betula populifolia, but occasionally on European cut leaf and native paper birch. Two broods of larvae have already mined the leaves at New Haven, Hamden, and Wallingford.

New York E. P. Felt (July 24): The birch leaf miner is abundant on gray birch from Glens Falls, south nearly to New York City, and west into the Catskills, many of the trees at the present time with such a proportion of the leaves browned by the mining that they have a brownish cast when seen from a distance. The first generation completed its transformations the very last of June or early in July, since adults, eggs, and young larvae were observed July 9. Breeding is known to occur until into early fall.

BOXELDER

BOXELDER BUG (Leptocoris trivittatus Say)

- Indiana J. J. Davis (July 23): Boxelder plant bugs abundant at Plymouth. All stages of nymphs and adults sent in.
- Utah George F. Knowlton (July 21): Boxelder plant bugs are present in great numbers, as always, sometimes getting into houses in such numbers as to be a pest.

BOXELDER APHID (Periphyllus negundinis Thos.)

- Utah George F. Knowlton (July 2): The boxelder aphid is abundant and the leaves on the trees are sticky and often moldy. (July 21): Damage from the boxelder aphid is much less serious now than earlier in the season.

CATALPA

CATALPA SPHINX (Ceratonia catalpae Boisd.)

- Ohio E. W. Mendenhall (July 18): I find great damage to catalpa trees in Knox County by the catalpa sphinx moth, especially in the nurseries. This can be easily controlled by spraying with arsenate of lead.
- Indiana H. F. Dietz (July 23): No widespread infestations of the catalpa sphinx were noted. At Evansville and Washington, however, local outbreaks were observed.

ELM

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

- New York E. P. Felt (July 24): The cockscomb elm gall has been common and disfigured the foliage of American elm at Rock Beach, Lake Ontario, near Rochester, according to T. Maloy.
- Indiana J. J. Davis (July 23): During the past month we have received the gall of this insect from all sections of the State.
- Wisconsin S. B. Fracker (July 10): Two requests for information were received from Beloit and Waukesha.
- Utah Geo. F. Knowlton (July 2): The elm cockscomb gall aphid is doing slight damage to elms at Providence.

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

- New York E. P. Felt (July 24): A slight infestation at Highland Park has been reported by R. E. Horsey. This scale has not attracted notice in the vicinity of Albany.

Wisconsin S. B. Eracker (July 10): A number of street trees were killed or weakened at Madison. Some were protected by oil spray in April, others by washing scales off with fire hose in June while young were active. Both measures tried were apparently successful.

WOOLLY ELM APHID (Eriosoma americanum Riley)

Utah Geo. F. Knowlton (July 2): Eriosoma americanum Riley, is doing much more damage by rolling the leaves.

ELM LEAF BEETLE (Galerucella xanthomelaena Schrank)

Connecticut W. E. Britton (July 24): Trees now showing brown in many parts of the State; Windsor, Cheshire, and New Haven.

New York E. P. Felt (July 24): The elm leaf beetle appears to be increasing in Rochester, there being one bad infestation on street trees, and for the first time all the elms in Highland Park were sprayed for this pest, according to report of R. E. Horsey. The insect is generally distributed in the eastern part of the State and here and there in the Hudson Valley has caused rather severe damage to individual trees or groups of trees, the destruction of the foliage apparently being closely related to near-by buildings or other structures affording excellent winter shelter.

Oregon J. Wilcox (July 3): Larvae of the second generation are just out on trees at Corvallis. Some larvae are as large as three-sixteenths of an inch long.

California F. P. Roullard (July 7): Spread has become general this season at Fresno and vicinity. Found in many new localities of the county. Several towns are spraying the trees.

HEMLOCK

EVERGREEN SPANWORM (Thera contractata Pack.)

New York E. P. Felt (July 24): Evergreen spanworm larvae, provisionally identified as this species, were abundant on a hemlock hedge at Rhinebeck under conditions which suggested severe injury earlier.

JUNIPER

JUNIPER WEBWORM (Dichomeris marginellus Fab.)

New York E. P. Felt (June 30): The juniper webworm appears to be unusually abundant in the lower Hudson Valley, there being several reports of injury from localities south of Poughkeepsie. Adults are

appearing at the present time. (July 24): The Juniper webworm has occasioned several complaints on account of its feeding upon and webbing together the foliage of ornamentals in the lower Hudson Valley.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Maryland

J. A. Hyslop (July 30): This insect is again browning the locust trees in eastern Maryland and northern Virginia.

Ohio

E. W. Mendenhall (July 21): I find the yellow blotch miner on both surfaces of the leaves. I find this damage to the locust in the southern half of the State.

BASSWOOD

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

New York

C. R. Crosby (June 11): Specimens of basswood received from Cazenovia. All basswoods in vicinity seem to be infested.

MAPLE

COTTONY MAPLE SCALE (Pulvinaria innumerabilis Rathv.)

Connecticut

W. E. Britton (July 24): Two samples received from Hartford.

New Jersey

R. B. Lott (July 24): This scale has been noted in the vicinity of the City of Elizabeth, where considerable damage has been done, in some cases causing death of tree. Undersides of limbs of trees along some streets are literally covered with scales and the cottony mass is, in some cases, an inch thick.

North Carolina F. Sherman (June 30): Several complaints received.

Alabama

J. M. Robinson (June 30): The cottony maple scale has been causing considerable attention pretty generally over the State where maples are prized as shade trees.

Indiana

"Chicago American" (July 6): Thousands of shade trees in Wabash and near-by cities and towns are being badly damaged and a number have been killed by the maple scale, according to the county agricultural agent.

J. J. Davis (July 23): I continue to receive inquiries and reports of abundance, especially from northern Indiana.

Wisconsin

S. B. Fracker (June 13): Some specimens of bittersweet, maple, and elm were received from Madison. Damage is not serious.

ORIENTAL MOTH (Cnidocampa flavescens Walk.)

Massachusetts J. V. Schaffner Jr. (July 25): Eggs and first and second stage larvae were observed in Roxbury and Dorchester sections of Boston on July 23. The greatest amount of feeding was on Norway and sycamore maples located in vacant lots and back yards. Infestation was heavy in two restricted localities visited.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Ohio E. W. Mendenhall (July 27): The bagworm is very bad on maple and other shade trees in Columbia and they are doing great damage to our shade.

MAPLE PHENACOCOCCUS (Phenacoccus acericola King)

Indiana J. J. Davis (July 24): Killing foliage of either hard or Norway maple at Salem.

SILVER MAPLE LEAF MITE (Phyllocoptes quadripes Shim.)

New York M. D. Leonard (June 17): Many trees infested at Nassau.

Wisconsin S. B. Fracker (July 10): Fewer specimens received than usual from Two Rivers.

GOUTY VEIN GALL (Dasyneura communis Felt)

Indiana J. J. Davis (July 23): This gall on hard maple was sent in from Washington, Ind., July 18. It agrees with this species, according to Felt's latest catalogue of gall insects. Galls had opened and all insects had left when received.

OAK

OAK LECANIUM (Lecanium quercifex Fitch)

Alabama J. M. Robinson (June 30): Lecanium quercifex on water oaks has been attracting attention. The young hatched in the first few days of June.

KERMES SP.

Mississippi R. W. Harned (July 8): From all sections of the State more complaints than usual have been received in regard to scale insects belonging to the genus Kermes on oak trees. The damage to the oak trees is probably a combination of the exceedingly long drought we have had, together with the attacks of the scale insects. The scale insects, we believe

are getting more credit for the damage than they deserve. People find their trees dying and upon examination find a few of these scales, and give them all of the blame for the condition of their trees.

PINE

INTRODUCED PINE SAWFLY (Diprion simile Hartig)

New York

E. P. Felt (July 24): The European pine sawfly was reported from Seneca Park, Rochester, by R. E. Horsey, though causing no serious injury. There was a bad infestation last September in Highland Park, Rochester.

WHITE-PINE WEEVIL (Pissodes strobi Peck)

New York

E. P. Felt (July 24): The white-pine weevil has been increasing in numbers in the large pine planting around Tomhannock Reservoir, City of Troy, and this season has killed 75 to 90 per cent of the leading shoots in restricted areas. The damage has been so marked that the city has 16 men cutting out and burning the affected shoots.

COLASPIS SP.

Mississippi

R. W. Harned (July 9): I have received specimens of these beetles that we think belong to the genus Colaspis from several correspondents. On June 24 Troy Thompson, Waveland, wrote as follows: "Under separate cover I am mailing a pine tree. The dying condition you will notice in the terminal straw is typical of hundreds of thousands of trees in Hancock County. I have made a rough survey of the territory covered and find it general over the western half of Hancock County. Yesterday I observed light infestations as high as Picayune. The territory from Waveland west on the Pearlinton road to within a mile or so of Pearlinton is the worst hit of any I have observed so far. However, coming back across the north end of the county I find heavy damage also, so I take it that it is general throughout this stretch. I am confident that fully 75 per cent of the young trees in this section are dying, and believe that by fall none will be left. So far the damage is mostly in young trees, but I find that in lots of places even the largest timber is beginning to turn red from the top down. So far I find very little damage along the Pearl River."

Troy Thompson (July 9): There is a chrysomelid beetle that is playing havoc with the foliage of the young pine trees in Hancock County and the part of Pearl River County that I have seen. There are acres and acres of these young pines that look like they are dead. On close examination I find that the beetles work on the needles near the shuck that joins it to the branch

but does not completely sever it.

Louisiana Wm. Middleton (June 30): Mr. Graf gave me some chrysomelid beetles sent in by Chas. E. Smith from the neighborhood of Ponchatoula and Madisonville. Smith states that the beetles are doing severe injury to pines in that locality by eating the needles. Small saplings were most severely infested. The beetle appears to be one on which we have several previous reports, i.e., Colaspis brunnea Fab., and Fisher thinks it is probably var. costipennis. Chittenden also tells me that it is Colaspis brunnea and any varietal determination would require larval studies.

PINE BARK LOUSE (Chermes pinicorticis Fitch)

Wisconsin S. B. Fracker (July 10): Normally abundant on white pine in northern counties.

POPLAR

COTTONWOOD APHID (Chaitophorus bruneri Williams)

Nebraska M. H. Swenk (June 25-July 25): An additional report of injury to cottonwood trees by the aphid Chaitophorus bruneri was received July 11 from Morrill County.

Utah Geo. F. Knowlton (July 21): Aphid galls on the leaf, petioles, and twigs of cottonwoods are common this year, sometimes causing considerable numbers of leaves to drop.

SPRUCE

RED SPIDER (Tetranychus telarius L.)

New York E. P. Felt (July 24): The red spider was somewhat abundant and injurious on junipers and spruces at Rochester, as reported by R. E. Horsey, and badly infested twigs, mostly of evergreens, have been received from other parts of the State.

Indiana J. J. Davis (July 23): We continue to receive reports, especially from the northern half of the State, of injury to cedar, Norway spruce, and other evergreens, as well as phlox, hydrangea, water-melon, pumpkin, tomatoes, and other plants. Complete defoliation was noted on sweet peas at Lafayette by Mr. Cleveland.

SPRUCE GALL APHID (Gillettea cooleyi Gill.)

New York E. P. Felt (July 24): The Sitka spruce gall has been extremely abundant upon some Colorado blue spruce at New Rochelle.

CHERMES SP.

Utah Geo. F. Knowlton (July 2): Spruce trees badly infested with Chermes this year in Logan, Emigration, and Big Cottonwood Canyons.

SPRUCE BUDWORM (Harmoloba fumiferana Clem.)

Wisconsin S. B. Fracker (July 10): Injury to spruce and balsam increasing in northern counties, judging by reports.

A EUCOSMID (Epinotia nanana Treit.)

Maine E. M. Patch (June 24): Sample of work from place at Mere Point brought to experiment station by Prof. Briscoe.

A EUCOSMID (Agropyloce abietana Fern.)

South Dakota H. C. Severin (June 25): The caterpillars of this moth did severe damage to spruce at Dell Rapids this year.

TULIP

TULIP SCALE (Toumevella liriiodendri Gmel.)

Indiana J. J. Davis (July 23): Reported abundant on tulip trees at Jasper July 6.

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Wisconsin F. Cranefield (July 10): Damage local at Baraboo on walnut.

INSECTS ATTACKING GREENHOUSE

AND ORNAMENTAL PLANTS

MISCELLANEOUS FEEDERS

APHIDIDAE

Indiana J. J. Davis (July 23): Reports of injury to flower garden plants by root aphids have been received from central Indiana the last few weeks.

RED SPIDER (Tetranychus spp.)

North Carolina F. Sherman (June 30): Several reports of it on lilac, dahlia, cantaloupe, and beans. As this is a dry weather pest and the season is thus far deficient in rainfall, we are apprehensive of outbreaks in cotton fields but no report of this received as yet.

Illinois W. P. Flint (July 20): The dry weather of the present season has made conditions very favorable for mites. Many reports of mite injury have come in during the last two weeks. In some cases where examinations have been made, a considerable amount of damage

has been done to flowering plants, fruits, roses, and fruit trees. Garden crops, especially beans, are also suffering severe injury from these creatures.

Wisconsin

S. B. Fracker (July 10): Tetranychus bimaculatus Harv. severely injuring ornamental evergreens such as pyramidal arborvitae, Colorado blue spruce, and various dwarf junipers at Madison and Waterloo. Also reports on ginseng at Gleason and, at Warrens, on raspberries.

EUONYMUS SCALE (Chionaspis euonymi Comst.)

New York

E. P. Felt (July 24): R. E. Horsey reports that the Euonymus scale is very abundant on Euonymus radicans and its varieties and has proved a very difficult pest to control on account of the numerous broods and the impossibility of spraying the evergreens in winter with oil.

CITRUS MEALYBUG (Pseudococcus citri Risso)

Mississippi

R. W. Harned (July 8): Mealybugs, Pseudococcus citri, have attracted quite a bit of attention throughout the State during the last few weeks. Several different lots of specimens have been received at this office. Most of the complaints have been regarding mealybugs on fig and coleus. However, specimens collected on magnolia at McComb have been identified as Pseudococcus virgatus Ckll.

SOFT SCALE (Coccus hesperidum L.)

Wisconsin

S. B. Fracker (July 10): One request for information received from Beloit relative to attack on trumpet creeper.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Indiana

H. F. Dietz (July 23): In the vicinity of Indianapolis the 12-spotted cucumber beetle is exceedingly abundant and doing considerable damage to garden flowers, especially such things as gladioli, daisies, phlox, and zinnias.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

New York

M. D. Leonard (June 27): Insects received attacking peonies, roses, and shrubs at Rochester.

FULLER'S ROSE BEETLE (Pantomorus fulleri Horn)

Mississippi

R. W. Harned (July 8): On June 19 a correspondent from Pascagoula sent to this office specimens that were identified as Fuller's rose beetle. In regard to these insects, the correspondent made the following statement: "They are found on everything in the shrub, trees, etc., line, and thoroughly destroy leafage."

LANTERN FLIES

Alabama J. M. Robinson (June 30): Lantern flies and kudzu skippers have been very numerous and active in attacking the kudzu.

WHITEFLY (Aleurodidae)

Indiana J. J. Davis (July 23): Abundant on house plants (Coleus) at Calver July 19.

CITRUS ME THIRIPS SP.

Kansas J. W. McColloch (July 20): Thrips (species not determined) were reported very bad on ornamentals of all kinds in a greenhouse at Blue Rapids.

A LACEBUG (Corythucha cydoniae Fitch)

Mississippi R. W. Harned (July 25): Lacebugs, identified as the species Corythucha cydoniae, were collected on craetegus at Laurel.

CANNA

CANNA LEAF ROLLER (Calpodes ethlius Cram.)

Texas C. C. Babcock (July 13): Canna beds about residences in San Angelo are badly injured by this pest. This is the first time I have observed this in western Texas. The larva appears to be the same as the species found in Maryland.

CHRYSANTHEMUM

A LACEBUG (Corythucha marmorata Uhler)

Mississippi R. W. Harned (July 8): Specimens of the chrysanthemum lace bug, Corythucha marmorata, on chrysanthemum leaves have been received from Clark and Hinds Counties.

GLADIOLI

MITES

Illinois W. P. Flint (July 20): Several cases of severe injury to bulbs by mites have been reported during the last month, narcissus and gladiolis being the two bulbs most affected.

LILAC

LILAC BORER (Podosesia syringae Harr.)

North Carolina F. Sherman (June 30): A few reports. Injury by this has not often been reported to us in the past.

MAGNOLIA

MAGNOLIA SCALE (Neolecanium cornuparvum Thos.)

Alabama J. M. Robinson (June 30): The magnolia soft scale has been sent in from southern Alabama attacking Magnolia fuscata.

PHLOX

A PLANT BUG (Lopidea sp.)

Indiana H. F. Dietz (July 23): The phlox plant bug, Lopidea sp., was doing considerable damage to phlox in nurseries at Evansville.

RHODODENDRON

RHODODENDRON LACE BUG (Stephanitis rhododendri Horv.)

New York E. P. Felt (July 24): The rhododendron lace bug has been very bad on rhododendrons in the Durand-Eastman Park at Rochester, as reported by R. E. Horsey.

ROSE

APHIDIDAE

Wisconsin S. B. Fracker (July 10): One complaint of Empoa rosae from Baraboo.

Utah Geo. F. Knowlton (July 2): Rose aphids are doing more damage than for the last four years. (July 21): Roses have been heavily infested with several species of aphids this spring, and in a number of places in northern Utah the rose curculio is found in considerable numbers.

ROSE CURCULIO (Rhynchites bicolor Fab.)

Indiana H. F. Dietz (July 23): The rose curculio was found injuring rugosa roses at Indianapolis and at West Baden the latter part of June.

TERRAPIN SCALE (Eulecanium nigrofasciatum Perg.)

Wisconsin Mr. Jungwirth (July 10): One report of damage at Sister Bay.

I N S E C T S A T T A C K I N G M A N A N D

D O M E S T I C A N I M A L S

MAN

CAT AND DOG FLEAS (Ctenocephalus canis Bouche and C. felis Bouche)

GENERAL STATEMENT F. C. Bishopp (June 29): Reports of annoyance to man and

live stock from these fleas have come in from parts of Texas, Arkansas, Kentucky, and Illinois. Apparently the insects are present in about the usual numbers for this time of year.

- Indiana Harry F. Dietz (July 23): Severe outbreaks of the cat and dog fleas continue to be reported from dwellings and from buildings in Indianapolis and this vicinity. At Washington we received reports of flea outbreaks in barns but no specimens have been submitted for the determination of these species.
- South Dakota H. E. Severin (July 15): About 15 requests for control measures for fleas were received during the last few days from various sections of the State.
- Nebraska M. H. Swenk (June 25-July 25): Fleas continued to be complained of much more than usual up to July 10, when the trouble seemed to abate suddenly.
- Kansas J. W. McCollough (July 15): Fleas have proved very troublesome in several houses at Manhattan. Reports have also been received of infestations in houses at Clay Center and Salina.

CHIGGERS (Trombicula irritans Riley)

- Indiana J. J. Davis (July 23): Since last report chiggers have been reported as very annoying in lawns and shrubbery from New Albany, Bedford, and Danville.
- Nebraska M. H. Swenk (June 25-July 25): Chiggers have been unusually bad this July.

HUMAN FLEA (Pulex irritans L.)

- New York C. R. Crosby (July 6): The insects make a sharp bite which swells and itches very badly for a good many days. Reported from Blauvelt, New York.

HOURLASS SPIDER (Lathrodectes mactans Fab.)

- Alabama J. M. Robinson (June 30): The hourglass spider or black widow, Lathrodectes mactans female, has been sent in from Huntsville by Dr. F. S. Austin, of the U. S. Public Health Service, stating that several people have been bitten by this spider. He did not mention that there were any fatalities.

CATTLE

- GENERAL HORN FLY (Haematobia irritans L.)

- GENERAL STATEMENT F. C. Bishopp (June 29): The horn fly has been less annoying to live stock in most parts of Texas, Arkansas, and Missouri

than is usual for the month of June. Although some dairymen are using sprays to protect their cattle, there is much less complaint from the insect than usual.

Indiana C. R. Cleveland (July 20): Scarce in the early part of the season until the latter part of June, owing apparently to the long drought in latter May and early June. Rains have now resulted in great increase during early July to the present. Now very abundant and annoying to cattle. Many dairymen are asking for information on fly sprays.

Missouri L. Haseman (July 24): Through central Missouri during the latter part of July livestock have been seriously harassed by an epidemic of the horn fly.

Texas O. G. Babcock (July 6): For the last week or 10 days at Sonora flies have been on the increase until now they will average approximately 400 to 500 per animal on range. They are now beginning to congregate at the base of the horns.

STABLE FLY (Stomoxys calcitrans L.)

GENERAL F. C. Bishopp (June 29): Very little annoyance to livestock STATEMENT has been occasioned by this insect during June in most parts of Texas, Oklahoma, and Arkansas. This comparative scarcity is probably associated with the dry conditions which have prevailed.

SCREW WORM (Cochliomyia macellaria Fab.)

Ohio F. C. Bishopp (July 1): There is a slight increase in the number of adults of the screw worm around the rendering plant at Columbus on this date.

Texas F. C. Bishopp (June 29): During June the number of cases of screw worms in all classes of live stock have greatly increased. A number of stockmen in western Texas stated that the insect is more abundant and injurious this year than it has been for several years past; they are now employing extra riders to scour the ranges and treat cases.

BLUE-BOTTLE FLY (Calliphora erythrocephala Meig.)

Ohio F. C. Bishopp (July 1): There are a few specimens of Calliphora erythrocephala around the rendering plant at Columbus on this date (May 30).

AMERICAN DOG TICK (Dermacentor variabilis Say)

Wisconsin S. B. Fracker (July 10): Complaints from several sections of Price County reporting great abundance, identification by Dr. Ewing.

SHEEP

SHEEP BOT FLY (Oestrus ovis L.)

Iowa Carl J. Drake (July 9): The sheep grub, Oestrus ovis L., killed a few sheep in Lucas County this spring.

POULTRY

HENHOUSE BEDBUG (Haematosephon inodorus Duges)

Missouri L. Haseman (July 24): Some poultrymen are having apparently unusual difficulty with the common hen bedbugs in their poultry houses.

FOWL TICK (Argas miniatus Koch)

Mississippi R. W. Harned (July 25): A complaint in regard to the fowl tick, Argas miniatus, was received from Biloxi, on July 16, No specimens were received.

STICKTIGHT FLEA (Echidnophaga gallinacea Westw.)

Georgia S. E. McClendon (July 7): A number of complaints of fleas on young chickens and cats have been received at Thomasville.

Texas F. C. Bishopp (June 29): In many parts of Texas these insects continued to cause considerable losses throughout the month of June. They are even increasing in numbers in the plateau region in western Texas.

ANTS (Formicidae)

Alabama J. M. Robinson (June 30): Ants of various species have been quite active throughout the month, causing irritation in households, as well as destroying poultry - young chickens.

INSECTS INFESTING HOUSES AND PREMISES

TERMITES

GENERAL STATEMENT T. E. Snyder: Termites continue to be reported as seriously damaging buildings. During the past year July, 1924-25 complaints of damage have been received as follows:

Massachusetts	2	West Virginia	1	Illinois	12	Oklahoma	1
Connecticut	1	Virginia	10	Iowa	1	Alabama	6
New York	8	North Carolina	3	Nebraska	11	Louisiana	17
New Jersey	3	South Carolina	7	Michigan	1	New Mexico	2
Pennsylvania	6	Georgia	2	Missouri	9	Texas	2
Maryland	9	Florida	1	Kansas	12	California	5
D. C.	33	Ohio	12	Kentucky	3	Canal Zone	2
Delaware	1	Indiana	8	Tennessee	6	Hawaii	6

Indiana J. J. Davis (July 23): Serious infestations reported from Buck Creek and Evansville the last two weeks.

Kansas J. W. McColloch (July 20): At Everest white ants are very bad in buildings and are said to be destroying some homes. A dwelling at Wichita has had the woodwork undermined. A report from a home at Lyons states that the woodwork and furniture have been ruined.

J. R. Horton (July 15): The first complaint of termite damage of the summer came in today. Mop boards, joists, and flooring was severely tunneled by this insect. Complaints of damage to dwellings and business buildings usually begin to come in about this time of year. This is the first report from the east side of the city.

HOUSE FLY (Musca domestica L.)

Indiana C. R. Cleveland (July 20): Unusually abundant and troublesome for this period of year.

CRICKETS (Gryllidae)

Indiana J. J. Davis (July 23): Reported annoying in dwelling at Aurora on July 17.

BEDBUG (Cimex lectularis L.)

Kansas J. W. McColloch (July 10): At Oakley a dwelling is said to be overrun with these insects. Wholesale poultry houses at Wellington and Manhattan report considerable trouble from these pests.

FLEAS (Siphonaptera)

Indiana J. J. Davis (July 23): We continue to receive numerous reports from all parts of the State of occurrence in barns, farm buildings in general, and city dwellings.

CARPET BEETLE (Anthrenus scrophulariae L.)

Indiana J. J. Davis (July 23): Reported unusually abundant during the last few weeks at Guilford and Lafayette.

Nebraska M. H. Swenk (June 25-July 25): An unusually large number of reports of trouble with buffalo moths, Anthrenus scrophulariae and A. fasciatus Herbst, has been received from housekeepers during the period covered by this report.

CLOVER MITE (Bryobia praetiosa Koch)

Wisconsin S. B. Fracker (July 10): Several complaints of these pests entering houses at Madison and Milwaukee.

CORNFIELD ANT (Lasius niger L.)

South Dakota H. C. Severin (June 25): Nuisances in homes. Exceedingly abundant in eastern third of the State. (July 15): An unusually large number of complaints are being received regarding the cornfield ant and its invasions of homes in eastern South Dakota.

EUROPEAN EARWIG (Forficula auricularia L.)

Washington Tacoma (Wash.) News-Tribune (July 21): The earwig is gaining headway at Kalama and vicinity and county agent D. B. Leonard urges a general campaign of poisoning in that vicinity to eliminate the pest.

SCORPIONS

Texas F. C. Bishopp (June 29): Several reports have been received of the occurrence of scorpions in numbers in houses in the vicinity of Dallas.

S T O R E D - G R A I N I N S E C T S

Nebraska M. H. Swenk (June 25-July 25): Stored-grain pests are very little complained of this summer.

GRANARY WEEVIL (Calandra granaria L.)

New York M. D. Leonard (June 25): Infested samples received from Wayland, attacking wheat and barley.

DRUGSTORE BEETLE (Sitodrepa panicea L.)

New York C. R. Crosby (July 1): Specimens received from Warsaw. Reported as found in sugar, bread, lard, and other places about the pantry.

The first part of the paper discusses the importance of the study and the objectives of the research. It also mentions the scope of the study and the limitations. The second part of the paper discusses the methodology used in the study. It mentions the data sources and the statistical methods used. The third part of the paper discusses the results of the study. It mentions the findings and the conclusions. The fourth part of the paper discusses the implications of the study. It mentions the policy implications and the future research. The fifth part of the paper discusses the conclusion. It mentions the overall findings and the recommendations.